Howe precedent

Monday April 15 1985

EUROPE'S BUSINESS NEWSPAPER

D 8523 B

World news

أللاما البثناء , quy youb.

Spaniards Date set blame **Moslems** for attack Thomson

Spanish authorities consider Isspanish authorities consider is-lamic extremists the most likely culprits for a bomb explosion which killed 18 people and injured 82 at a restaurant in the outskirts of Ma-

Interior Minister José Barrionuevo said police were treating a claim made in Beirut on behalf of Islamic Jihad (Holy War) as the "most reli-able." Other hypotheses were not being discarded

The Madrid bombing could add to evidence of links between Lebanonbased terrorists and European extremisf organisations which have recently carried out attacks against Nato personnel and installations.

Neves setback

No concer

Brazilian President-elect Tancredo Neves suffered another setback, 48 hours after his seventh operation in a month. His temperature surged and his heartbeat and breathing

Lebanon battles

Artillery battles raged in the mountains outside Beirut between Lebanese troops and Christian militia. and Druze-led forces. Near Sidon, the fighting between Christian and Moslem and Palestinian fighters eased. Page 2

Sri Lanka curfew

A dusk-to-dawn curfew was imposed in the town of Akkaraipattu in Sri Lanka's troubled Eastern Province to quel clashes between Moslems and Tamils and guerrilla attacks on security forces.

Albanian rebuff

New Albanian leader Ramiz Alia rejected an approach by the Soviet were severed by Albania in 1968. Page 3

Peru elections

Peruvians voted amid tight security veral elections expected to de feat the conservative Government of President Fernando Belaunde Terry and move the country to the

Paris blast

Three bomb attacks in Paris, two aimed at Israeli and rightwing targets, did considerable damage to buildings and parked cars but caused no casualties. Page 2

Chile clash

Chilean riot police clashed with students at the University of Chile in Santiago. Students hurled petrol bombs at the police who replied with tear-gas canisters and buck-

Swedish intruder

The Swedish navy fired at an unidentified intruder which could have been a submarine or a team of divers using an underwater vessel. The incident occurred near a semirestricted area off Karlshamn.

Kuwait amnesty

Kuwait released 332 prisoners jailed for capital offences, under a general amnesty which excluded those charged with political crimes.

Mid-east talks

U.S. assistent Secretary of State Richard Murphy began a round of talks with Arab leaders that may signal the start of fresh U.S. involvement in Middle East Peace ef-

Sudan Cabinet

Military and civilian representatives held talks in Khartoum on forming a new government for Sudan. The civilians apparently remained divided over the cabinet

Border fortified

fications along the Lebanese border in preparation for its troop pull out. pean Banking Group. Page 16

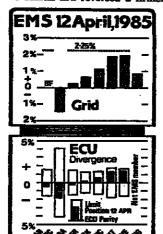
for CGE deal with

Business summary

No. 29,599

CGE, the French nationalised electronics group, is to take over the civil telecommunications interests of the Thomson electronics concern from July 1, 18 months earlier than originally agreed. Page 16

EUROPEAN Monetary System: Losses sustained by the U.S. dollar over the past week provoked a de-cline in the value of the weeker members of the EMS last week. The Italian lira reversed a firmer



trend seen the previous week while the Belgian franc lost ground, remaining the weakest member bound by the 2½ per cent diver-gence from central rates. However both currencies remained well within their divergence limits. While appreciating strongly against the dollar, the D-Mark showed only a small change in relation to its cen-

tral rate. The chart shows the two constraints The chart shows the two constraints on European Monetary System exchange rates. The upper grid, based on the weakest currency in the system, defines the cross rates from which no currency (except the lira) may move more than 2% per cent The lower chart gives each currency's divergence from its "central rate" against the European Currency Unit (ECU), itself a basket of European Currency Unit (ECU), itself a basket of European

TOKYO share prices were higher. with the Nikkei-Dow market average up 14.21 to 12,588.01. The rise in the yen benefited oils and utilities but investors avoided blue chip companies as fears over trade fric-

U.S. MONEY SUPPLY: M1 rose \$1.9bn to a seasonally-adjusted \$574.7bn in the week ended April 1,

INDIA will continue to follow a highly-liberalised trade policy for the next three years following the

lifting of many more restrictions on imports and exports. Page 4 PRESTWICK Holdings, the Scottish printed circuit board maker, is coming onto the market through a

fixed price offer which values the company at £20m (\$24.4m). Page 22 LIVERPOOL's port is seeking another 209 voluntary redundancies among its 2,000 dockers. RANKAMERICA, the second larg-

est U.S. banking group, reported a 13 per cent gain in first quarter net earnings to \$114m but again noted that it continued to be plagued by

RELIANCE FINANCIAL Services. which is controlled by New York City investor Mr Saul Steinberg, intends to mount a proxy fight for control of Tiger International, the U.S. air services group.

SOUTH AFRICA's two leading hotel groups, Southern Sun and Holiday linns, are to be merged to form

OLIVEITI chief Sig Carlo de Benedetti, who is also a financier in his own right, is joining a consortium of investors including Pirelli, the Berlusconi television group and others to take a 24.5 per cent stake of Italy's Mondadori publishing group. Page 19

Israel is building new electronic de- MIDLAND BANK may swap its intection systems and dozens of forti-terest in the European American Bank for a bigger stake in the Eurowing Likud ministers in the La- that the Prime Minister's office has bour-led coalition has provoked a been trying to circumvent it in its

Thatcher boosts UK's image in incident-packed tour Big fight

foreign investors and potential

buyers of UK exports may have been deterred by the miners'

strike and Mrs Thatcher was

simply correcting Britain's unde-served bad reputation for indus-

Conservative MPs are jittery

trial relations.

BY ROBERT MAUTHNER, DIPLOMATIC CORRESPONDENT, IN NEW DELHI

THE TOUR of six Asian nations and Saudi Arabia, which Mrs Margaret Thatcher, the UK Prime Minster, has just completed, has been one of the most physically gruelling since she came to office.

In the end, even the resilient Mrs Thatcher began to show signs of miles across South-East Asia, often getting up at 5am or 6am to fulfil her packed programme, which left little or no time for rest.

On one crazy day, Mrs Thatcher had official engagements in three countries - Singapore, Brunei and Indonesia - dragging her weary en-tourage along from Commonwealth war cemeteries to sultans' palaces and presidential banquets.

Little wonder, therefore, that the nask began to slip. On one occasion she referred to the country she was speaking in as Malaysia, whereas she was actually in Indonesia. Last

Mrs Thatcher returned to London last night, faced with the need to reassert her personal authority after strong criticism from the Labour Party of her behaviour during the Far East tour. The Prime Minister is expected strongly to defend her remarks about trade unions learning the facts of life during questions tomorrow in the House of Com-

The Government's view is that on May 2.

she was afflicted by a prolonged bout of coughing and sniffles. This was the combined result, as she put it after regaining her composure, of "your climate and air conditioning system to which our throats are not

The royal "we" used on that occasion was perhaps a slip of the Saturday, when addressing the Sri tongue or a reference to husband Lankan parliament, she had to stop in the middle of her speech when Denis and herself. But royal was also a fitting description of the wel-

because of the revival in La-bour's opinion poll standing and are apprehensive about local elections in England and Wales

come she received in some of the capitals. The pomp and circumstance surrounding her arrivals and attendance at ceremonial occasions, not least in a country such as Indonesia with no traditional ties with Brit-ain, would not have been out of

place for a monarch.

At Jakarta airport, she stood un-der a canopy with President Suhar-to while what looked like half the

Indonesian armed forces paraded representing the founder and se in front of her and a 19-gun salute boomed out over the whole proceed-

official occasions became an incident-packed tour. Thanks to the straight talking of the Prime Minister, Fleet Street journalists looking for stories with a domestic flavour over the "dead" Easter holiday period and Britain's Labour opposition only too happy to play with impuni-ty while the boss was away, a politi-cal ping-pong match developed be-tween London and South-East Asia which is still continuing. Dr Mahathir Mohamad, the quix-

otic Malaysian Prime Minister, who can always be relied on to provide a bit of fun when everything is run-ning smoothly, started the ball roll-ing with a stinging attack on the Commonwealth at the welcoming banquet for Mrs Thatcher in Kuala

The British delegation, although

BY PAUL TAYLOR IN NEW YORK

Management, the small New Jer-

sey-based government securities dealer which failed last week, has

The discovery significantly in-

reases uncertainties over the size

the company's books.

Bevill, Bresler

trustee finds

\$5bn in deals

THE U.S. bankruptcy trustee for ed BBS trustee last week, said that,

Bevill, Bresler & Schulman Asset for the moment, he is holding to

nior member of the Common-wealth, professed itself to be unperturbed because, untypically, Dr Ma-What many feared would turn out hathir had managed to say a few to be a succession of rather boring nice things about Britain, almost as an after-thought. By previous stan-dards, the inventor of the "buy British last" policy was being extremely

> Not to be outdone, the still fresh Mrs Thatcher waded in with some carefully chosen comments about "seeing the unions off" during the miners' strike, a theme which she kept up until the end of her Singa-

charming, a British spokesman

In the island state, she was joined in a chorus of anti-union rhetoric by Mr Lee Kuan Yew, the veteran Singaporean Prime Minister and patron of free enterprise. whose admiration for Mrs Thatcher's rigorous economic policies knows no bounds. Because these

Continued on Page 16

promoter hits the

By Terry Dodsworth in New York

MR BOB ARUM, the boxing promoter, says he is not interested in making records out of tonight's big making records out of tonights hig middleweight fight between black Americans "Marvellous" Marvin Hagler and Thomas Hearns, "only in making money." Yet he nevertheless seems set to do both.

"I'm relaxed, confident, pleased with the way things are going everything's building up to a cres-cendo," he said at the weekend from his suite at Caesar's Palace, Las Vegas.

Mr Arum has already made the big time in the promotional business. It was he who brought together "Marvellous" Marvin and his Panamanian challenger, Roberto Duran, in a vicious Las Vegas brawl 16 months ago. Earlier, he had matched Duran against "Sugar" Ray Leonard in a bout staged in

Both fights hit the financial jackpot, but the biggest haul of all came from a fight put on by rival promoter, Mr Don King, whose heavyweight maich between Larry Holmes and Jerry Cooney grossed around \$46m, netting \$22m for the fighters and promoter. The closedcircuit viewing record goes back a generation to the days of Moammed Ali and "Smoking" Joe Frazier, whose 1971 bout was watched by a special screen audience of 1.6m people in the U.S.

Mr Arum says with a touch of awe that the Ali-Frazier fight brought in \$18.5m, which is probably still a record in real terms. But if his own brand of marketing hoopla has the expected effect, tonight's that the billions of dollars for trans- contest ought to pull in comfortably actions uncovered appeared to be more. About 700 theatres and stadiums around the U.S. will have a direct screen link-up to Las Vegas. "We are hoping to sell 2m tickets and we are certain of 1.8bn." he

The seats in these satellite viewing arenas, which include some sizeable venues such as Madison Square Gardens in New York, cost between \$15 and \$40. Similar closed-circuit viewing will be available in a few countries overseas, but most of the foreign sales are to commercial television networks. which has been calculated at one in

five of the global population. The really big seating money however, comes from Las Vegas itself, where 15,200 spectators will occupy seats in the Caesar's Palace car park stadium priced between

5300 and \$600 each. These customers alone will bring in S6m. Predictably, these prices owe everything to the Las Vegas gam-

Continued on Page 16

Cautious reaction by EEC to U.S. call for monetary talks

BY MAX WILKINSON AND QUENTIN PEEL IN PALERMO

EUROPEAN COMMUNITY finance ministers, meeting informally in Palermo, reacted with extreme caution at the weekend to the proposal made by Mr James Baker, the U.S. Treasury Secretary, for high level talks on the world monetary situa-

At this week's gathering of world financial leaders in Washington un-der the anspices of the World Bank and the International Monetary Fund, the European ministers will be holding intense discussions with the U.S. Administration.

The talks will cover how they should react to further falls in the dollar and on the need for the U.S. to take further action to reduce its federal budget deficit without precipitating renewed upheaval in the foreign exchange markets.

Ministers questioned the mean-ing and the substance of Mr Baker's statement and who would attend such monetary discussions. They expressed a clear preference for continuing contacts within the forum of the IMF's interim committee. which meets again on Tuesday.

None the less, Sig Giovanni Gor-ia, the Italian Finance Minister, who chaired the talks, said the statement was "a sign of move-ment." Mr Nigel Lawson, the British Chancellor of the Exchequer, said on the other hand that there was "no disposition to regard the

rather confusing U.S. intervention in Paris as an important event."

The Ten are still divided on how hard to press the U.S. on the question of monetary reform, although

united in their general concern at Bank. extreme exchange rate fluctuations. M Jacques Delors, President of the European Commission, and M Pierre Bérégovoy, French Finance Minister, would like to see greater U.S. co-operation on monetary stability directly linked to EEC willingness to begin talks on further trade liberalisation in a new Gatt round. Britain and West Germany op-

pose any such overt link.

The European ministers are agreed, however, on the need to put pressure on the U.S. to endorse their plan for an investment guar-antee agency for the Third World, under the management of the World Bank.

This would be aimed at reviving the flagging level of private investment in developing countries, and so help ease the current world debt The EEC ministers' approval for

the idea, first mooted by the World Bank itself, amounts to the first top-level government support for the proposal. But the Europeans are worried at the U.S. response, since any increased allocation of funds would require U.S. Congressional approval.

The investment guarantee agency is being put forward as part of the wider debate about the future role of the IMF and its relation with uncovered previously unknown transactions totalling about \$5bn on the lending policies of the World

This weekend the EEC minister were unanimous that there should be greater co-ordination between the Fund's short-term program for curing trade deficits and the World Bank's longer-term assistance to poorer nations. There is still substantial dis-

agreement among them about the exact division of responsibilities, and how far the World Bank should switch its emphasis from specific aid projects to broader programmes of economic reforms. The questions are unlikely to be

resolved in Washington, and will come to a head at a special meeting group of Western nations in Tokyo in June. On that occasion, they will consider a four-part study of the world

monetary system which is now nearly completed. The weekend talks among the

Ten reflected broad agreement on two of the four headings. They are: ■ Increased IMF-World Bank co-operation: and

End to laisser faire, Page 14

have begun raising the estimates of Continued on Page 16 their potential losses.

Mr Saul Cohen, who was appoint-

the BBS collapse.

dealings with BBS.

large number of U.S. savings banks.

of losses resulting from the failure of BBS Asset Management and oth-er BBS units which have been forced into bankruptcy by the U.S. Securities and Exchange Commis-"paper transactions that did not ap-pear to involve securities." He added, we do not know if they were with affiliates or if they were even

earlier estimates that its losses may

total about \$198m. But he added

that the discovery of the previously

unreported transactions raised the

possibility that the losses could be

igher. Mr Cohen said at the weekend

Already the BBS collapse, the second failure of a U.S. government bond dealer in a month, has had Of the \$5bn in previously unreported deals, about \$4hn are listed on the books as assets and \$1hn as widespread repercussions similar liabilities. Both figures are huge to those following the collapse last compared with earlier figures from month of ESM government securi-ties, a Florida-based government the BBS unit, which suggested BBS Asset Management's balance sheet totalled about \$500m.

 Worthen Banking Corp, a small -based banking group, in other develor ents at the weekend, Worthen Bank and Trust said its principal banking unit may Company of Little Rock, Arkansas, which has assets of about \$1bn and suffer losses totalling \$52m after ● First LaSalle Services, a Chicago capital of \$59m, said losses resulting from its dealings with BBS would require a substantial new infutures broker, halted operations because of potential losses by one fusion of capital. of its affiliates as a result of its

The bank, which had previously Other BBS clients, including a estimated its maximum losses from the BBS collapse at \$12.5m, said it

Continued on Page 16

Wall Street review. Page 16

Israeli Cabinet refuses to back Peres plan for Cairo talks

BY DAVID LENNON IN TEL AVIV ISRAEL'S Cabinet was plunged into a crisis and the authority of Mr Shimon Peres, as Prime Minister of the National Unity Government, received a severe blow yesterday when the Cabinet refused to rub-ber-stamp his decision to send a minister to Cairo for private discussions with Egyptian leaders.

The Cabinet voted 10 to nine against the visit to Cairo this week of Mr Ezer Weizman, a minister without portfolio. That came as a total surprise to Mr Peres, who be-lieved the trip had been approved last week by Mr Yitzhak Shamir, head of the Likud right-wing bloc. vice-premier and foreign minister in the coalition.

day linns, are to be merged to norm a domestic group with 50 hotels and a virtual monopoly of the middle to upper end of the country's hotel lines that would limit Mr Weiznest to a courtesy call and man's visit to a courtesy call and bar the minister from engaging in political negotiations. Mr Weizman was due to fly to

Egypt tonight as the guest of Mr Kamal Hassan Ali, the Prime Minister. Mr Weizman is popular with the Egyptians because of the positive role he played in the peace negotiations in the late 1970s. The surprise move by the right-



Shimon Peres

crisis of confidence and must raise further doubts about the ability of this broad-based coalition to survive the full four years of its term in

If the inner Cabinet does not approve the trip when it meets this morning, then a full-scale Cabinet crisis will be unavoidable. Even if the Weizman visit is approved, the rift displayed yesterday will haunt the Cabinet decision-making process in the future. The Foreign Ministry, headed by

the Likud minister, has long felt

dealings with Egypt. The Labour Party takes a much more conciliatory stance towards Egypt than the Likud, which holds Cairo responsible for the present tension in rela-

ful that Mr Weizman, as Mr Peres's representative, will make unnecessary concessions over issues such as the disputed Taba border area in an attempt to improve relations between the two countries.

Mr Shamir, in explaining his decision yesterday, told the Cabinet that what he had originally ap-proved was a courtesy visit. But, he said, the publicity and the headlines of the past few days indicated that it had taken on a much more political character.

Labour and Likud have been uneasy bedfellows after the indecisive outcome of last year's general elec-tions made it impossible for either of them to form a government on their own and forced them to join in

There have been frequent angry exchanges between these basically opposed parties in recent months over issues ranging from the economy to the withdrawal from Leba-

U.S. 'explores' peace talks; Beirut battles, Page 2

Almost as sale as a Lansing forklift

HalfwaydownThreadneedle Street in the City of London, you'll find the Bank of England.

If you could put your money there it would be one of the dullest, as well as one of the safest things you could do with it. Invest in a Lansing though, and in comparison with any

other forklift, it will give you a long and reliable life for less

return into the bargain.

money and a handsome Why invest in anything less?

LANSING LTD. 12 ALANSSTOKE (0256) 473131.

CONTENTS International 2, 3, 5 Financial Futures 32 Int'l Capital Markets 17, 19 Letters 15 World Trade 4 Lex.... Britain 7-9 Lombard

Bourses 24 Wall St 24-27 Currencies 32 Technology 11
Editorial comment 14 Unit Trusts 23-29

West Germany: digging into Lex: a decent rate for the the nuclear waste bin 5 Statistical trends 6

Technology: blueprint for computers:

Europe: Howe sets human Editorial comment: farewell rights precedent 3 to laisser faire; gilts 14

job 16

Professional personal chemical plant safety 11 Survey Section III



Ebic banks: your partners in financial circles





Société Générale de Banque

Generale Bankmaatschappij

Midland Bank plc



Strength. Reliability. Innovation. Experience. Important considerations when you're choosing a bank. Ebic brings together seven such banks. Seven major, European banks with assets of some \$400 billion. Seven banks with 10,000 branches, subsidiaries, associates and joint ventures throughout the world. Seven banks that have been co-operating for a quarter of a century.



EUROPE'S MOST EXPERIENCED BANKING GROUP

The amalgam of AFA-Minerva and THORN EMI Fire Appliances has created THORN EMI PROTECH - the largest British owned fully integrated enterprise in these areas: Fire Protection Equipment and Systems, Security, Building Monitoring and Control, Service.

THORN EMI PROTECH.

The new company has been created by the integration of the long established. One thing will not change, and that is the security and building monitoring and THORN EMI Fire Appliances, embodying organisation. Dunford Fire Engineering, Dunford Fire Systems, L & G Fire Appliance Company - Make us prove it Contact us for more and Thomas Glover & Co.

THORN EMI Information Technology THORN EMI PROTECH will offer an un-Limited, introduced a new company paralleled range of products and services in the field of protective systems - with the support of an internationally. renowned organisation.

AFA-Minerva, leaders in fire protection, individual attention to your specific needs. This personal aspect of our operation is control, with the recently established reflected in every area of this new

details at the address below.



THORN EMI PROTECH Limited, Security House, Grosvenor Road, Twickenham, TW1 4AB. Telephone: 01-892 4422. Telex 8814916. A THORN EMI Information Technology company.

OVERSEAS NEWS

Sudanese central bank governor dismissed

BY OUR KHARTOUM CORRESPONDENT

BANKERS in Sudan believe that an immediate result of the military coup earlier this month will be the dismantling of the Islamic banking system. introduced by former President Gazfar Nimetri in 1983,

The governor of the Sudanese central bank was dismissed by the new regime last week and replaced by his deputy, Mr Mahdi el Fakhi who is expected to announce the change shortly. A return to Western-style

banking is likely to result in a large movement of funds out of the Islamic banks and into those international banks which decide to go back to traditional practices, in particular the use of interest which is banned under Islamic Sharja law.

It could also encourage the return of a large quantity of ex-patriate funds at present invested abroad. The government news agency Sana re-ported last week that Sudanese communities throughout the Gulf states were setting up committees to raise funds to help the country overcome its economic difficulties.

Since Sharia law we introduced bank loans have been negotiated on a profit sharing basis. The system had the

effect of reducing bank liquidity, prompting massive transfers of hard currency to accounts abroad. Credit facilities were difficult to obtain and import licences impossible. In February this year the Government froze atl foreign currency accounts in

an attempt to halt these

transfers.

The one bank to have benefited from shariah law has been the Fais allslamic Bank, supported in large part by the Moslem Brotherhood organisation. During the demonstrations leading up to the coup the bank was chosen as a particular target by the

crowd, and all its windows

were broken.
Rumours have been rite
that the Moslem Brothers had been using favourable credit facilities obtained from this

facilities obtained from this ank to speculate on the market for dura, a staple food, More than 6m people estimated to be threatened by starvation in east and west Sudan are dependent on dura for their food supply.

A decision on the Islamic banking practices could give an early indication of how far the new Government is prepared to go in changing the Islamic constitution, which at present is suspended.

Shuttle may

try satellite

salvage for

By Paul Taylor in New York

NASA OFFICIALS were vesterday considering whether to attempt to salvage a failed communications satellite released from the shuttle

Discovery's cargo bay

The U.S. space agency confirmed yesterday that Leasat 3, a 17,000-lb communications satellite built by Hughes Air-

craft and leased to the Pentagon

Saturday.

Pentagon

Five die in S. African townships as Tutu condemns black violence

BY ANTHONY ROBINSON IN CAPE TOWN

AT LEAST five people died and police made dozens of arrests, as rioting, stone-throwing and petrol-bombing flared up in townships scattered across the country over the weekend.

But a large police and army cordon around the black township of Kwanobuhle, near Uitenhage, in the Eastern Cape, helped to ensure that the mass funeral of 19 blacks killed by police on the 25th anniversary of the Sharpeville massacre on March 21 took place without

A crowd estimated at over 60,000 poured into Kwanobuhle 60,000 poured into Kwanopunie on Saturday for the mass before a police patrol arriveu. funeral at which Bishop Two black people died on their Desmond Tutu, the Anglican way to hospital, and at least four were wounded.

Archbishop of Johannesburg, four were wounded.

Similar incidents were restricted to the townships in and the Rev Allan Boesak, president of the World Alliance of Reformed Churches, and other black and white clergy

In his funeral address, Bishop Tutu strongly criticised the violence used by angry black crowds against the lives and properties of black councillors, policemen and officials.

"I am opposed quite vehe-mently to all forms of violence, including that which seeks to overthrow the system of apartheid. I call upon you to realise that by burning bodies we are allowing our enemies to rejoice. Let us not use methods used by the enemy," he told the crowd.

Despite the Bishop's plea for non-violence, a crowd of rioters estimated by police as 500-strong attacked the home of a black policeman in a township near Uitenhage on the night of the funeral. Police said that the officer fired in self-defence before a police patrol arrived.

ported in other townships in the Eastern Cape, at the railway junction of de Aar, in Cape Province, and in other townships as widely spread as Kimberley, the diamond-mining town in the centre of the country, and Daveyton, near

Meanwhile, in the Cape Town

Mr Murphy's soundings indicate

progress towards a resumption of the stalled peace process. Washington has resisted

attempts to draw it back into

the search for peace while Arab states are divided on the

conditions. A stumbling block remains U.S. and Israeli insistence that they will not deal directly with the Palestine

Liberation Organisation and its chairman, Mr Yassir Arafat.

The PLO has rejected an tempt by Egypt to find a way

repeal of the 1949 Mixed Marriages Act and Section 16 of the 1957 Immorality Act, which outlaw mixed marriages and sexual relations across the colour line is expected to be proposed by a parliamentary joint committee of the white, Asian and Coloured Houses.

The committee's findings will be announced before a joint session of the tri-cameral Parliament. The Government is expected to accept its recommendations as further evidence of its intention to repeal the more offensive aspects of apartheid legislation.

What is not clear at this stage

What is not clear at this stage is whether the Government will subsequently agree to further changes in key related areas of apartheid, such as the Population Registration Act and the Group Areas Act, which classify people on racial lines and dictate where they may live Without these changes. live. Without these changes opposition groups from all races have already said that scrapping the two acts is merely tinkering with apart-

Zaire switches

By Peter Blackburn in Abidjan

ZAIRE's President Mobutu

Sese Seko has appointed a new economic team shortly before debt rescheduling talks start with the Paris and

London ciubs of official and commercial creditors.

The ministers of finance, foreign trade and economy

have been changed only 10

weeks after their appoint-

ment at a delicate transitional

stage in Zaire's economic

recovery. Pressure is mount-

austerity measures in force

The reshuffle emphasises

the Government's desire to

accessfully implement the

International Monetary Fund's

12-month recovery programme, according to an official commentary. It adds

a relax

in the country.

economic:

ministers

for navy communications, had failed after being deployed by Discovery.
Nasa believes a key level on top of the satellite failed to activate on launch from the cargo bay: the lever switches on the satellite's batteries, timing system and deploys its antennae rendering Leasat 3

useless.
The latest hitch in the shuttle programme comes during in-creasingly tough competition for satellite launches between Nasa and Arianespace, the European space agency.

Yesterday, Nasa scientists were conducting water-tank simulations of the problem and considering various options, including the possibility of a space salvage mission. Shuttle astronauts last November recovered two disabled communications satellites, bringing them back to earth for refurbishment an<mark>d resale</mark>.

Discovery, which is manned by a seven-member crew including Senator Jake Garn, is midway through a five-day flight and has already successfully launched another communications satellite.

One possibility being con-sidered by Nasa was to extend the mission by two days, manoeuvre Discovery close to Leasat 3 and swing one of the astronauts out on Discovery's robot cargo arm close enough to physically flip the errant lever. Such a rescue would be highly difficult because the satellite is spinning. "It would be like trying to grab hold of a ring on a spinning carousel," said one space scientist.

FINANCIAL TIMES, USPS No. 190640, published deily except Sundays and holidays. U.S. subscription rates \$420.00 per annum. Second class postage paid at New York NY and at additional mailing offices. POST-MASTER: send address change to: FINANCIAL TIMES, 14 East 60th Street, New York, NY 10022.

U.S. starts 'exploratory' Middle East peace talks

MR RICHARD MURPHY, the on to several Arab capitals if American assistant Secretary of State, responsible for Middle East affairs, has begun a round of talks with Arab leaders that may signal the start of fresh U.S. involvement in Middle East eace efforts.

Mr Murphy met yesterday with King Hussein of Jordan and will also visit Syria, Israel, Egypt and Saudi Arabia for discussions on ways to advance the peace process.
U.S. officials described Mr

Murphy's presence in the attempt by Egypt to find a way region as "exploratory." But round the impasse by suggest-they also hinted at the possing first-stage talks between the U.S. secretary of State, who is delegation not including PLO due in Israel on May 10, going members.

Battles erupt near Beirut

artification of the second of blamed Israel and Christian militia for clashes around the southern port city of Sidon during the past month, Reuter against Lebanese President with Carried alignment with

reports from Beirut.
The State-run Beirut radio said shelis landed in residential

ARTILLERY battles erupted in Sidon yesterday, where 64 mountains near Beirut yester-people have died and about 230 day as Mr Rashid Karami, the have been injured, according

Amin Gemayel's alignment with Syria, had ignited the Sidon trouble.

areas far from the front times, but there were no immediate reports of casualties as army incided with the despatch of troops and Christian militia 'Lebanese forces' fighters to Sidon and this led to the expectation of the situation there," Four people were killed and plosion of the situation there," 30 wounded in fighting around

Caithness, with its famous John O'Groats to Lands End connection, may be the most northerly District in the Highland Region of Scotiand, but it offers unique opportunities to the cili industry through its close proximity to both existing major olifields and operations related to the 9th Round and future Rounds of Exploration Licences.

Acknowledging that rapid communication is the life blood of the oil industry, where else in Scotland can you find Road, Rail, Air and Harbour facilities all having humedate proximity to the North Sea? None other than the thriving town of Wick.

Cuithness with its high technology base, is also renowned for its ability to meet every demand for a highly skilled labour force. The only thing missing in Calthness is your decision to invest.

Whether you are contemplating a move or wishing to return home, Calthness must be your first choice.

For further information you are invited to contact Peter Mackinto Development Department, Highland Regional Council, PREEPOST, Regional Buildings, Glepurquhert Road. Inverness IV3 SNX. or telephone



4317-5 | 2130 -131 | 156 | 152 | 152 | 153 | 153 | 153 | 153 | 154 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163

Cutout and dip your business Please send me your

info pack on Caitoness. FT3 . .

SWITZERLAND

LAKE GENEVA -- MOUNTAIN RESORTS

Lovely apartments with magnificent views of Lake Geneva and mountains.

Montreus, Villers, Verbier, Lee Displerets, Chateau d'Oex neur Getaud,
Leyeln Excellent opportunities for foregners.

Prices from SwFr123,000. Liberal mortgages at 67 % interest
GLOSE PLAN SA, Av Mon-Repos 24, CH-1005 Lausanne, Swritzerland

Tel: (21) 22,512 - Teles: 25185 MELIS

ESTABLISHED SINCE 1970

that the main objectives of the previous 15 month SDR 228m (£182.6m) IMF arrangement, which expired in March, were fulfilled.

AFRICAN DEVELOPMENT BANK KD 2,000,000 SERIES "A" 81% BONDS DUE 1987

Notice is hereby given that in accordance with Clause 4(a) of the terms and conditions of the bonds, the bonds bearing the following serial Nos. have been called for redemption at par on 15th May 1985.

Bonds in denomination of KD 1,000/- each

Bonds in denomination of KD 1,000/- each

1 to 10, 41 to 50, 81 to 80, 121 to 130, 161 to 170

201 to 210, 241 to 250, 281 to 290, 321 to 330, 261 to 370

401 to 410, 441 to 450, 481 to 480, 521 to 630, 661 to 670

601 to 610, 841 to 650, 681 to 680, 721 to 730, 761 to 770

801 to 810, 341 to 850, 851 to 890, 821 to 930, 961 to 570

1001 to 1010, 1047 to 1050, 1081 to 1090, 1121 to 1130, 1161 to 170

1201 to 1210, 1241 to 1250, 1261 to 1280, 1321 to 1330, 1361 to 1370

1401 to 1410, 1441 to 1450, 1481 to 1490, 1527 to 1530, 1567 to 1570

1801 to 1810, 1841 to 1850, 1881 to 1890, 1921 to 1330, 1961 to 1870

The payment will be made against presentation and surrender of the bonds together with all unmatured coupons appertaining thereto to the Fiscal Agent or to the Paying Agent whose addresses are given below. The face value of the missing coupons will be deducted from the sum due at the time of payment.

Fiscal C.gent Kuwait International Investment Co. s.a.k. Sti Roor, Gate No. 8
Al-Salhiya Commercial Complex
Fahad Al-Salem Street

> Paying Agent Kredietbank S.A. Luxembougeoise 43, Boulevard Royal Luxemboug



Kuwait International Investment Co. s.a.k. (fiscal agent)

Fully equipped Business Centre

with secretarial service, facsimile, 24-hour telex and prompt message delivery.

Most modern accommodation in Seoul. Ideally located.

For reservations call your travel agent, and Hikon International hotel or Hilton Reservation Service.

SEOUL HILTON INTERNATIONAL WHERE THE WORLD IS AT HOMES

Madrid bombing linked to Islamic Jihad extremists

THREE BOMB attacks in

Paris at the weekend, two aimed at Israeli and right-

wing targets, did considerable damage to buildings and

parked cars but caused no casualties, writes David

casualties, writes David Marsh in Paris.
Separate explosions on Saturday morning hit the Paris subsidiary of Israel's Bank Leumi and the French National Immigration Office. Another bomb just before dawn on Sunday wrecked the headquarters of the rightwing newspaper Minute.

The anti-Israeli attack was believed to be linked to the

believed to be linked to the Islamic Jihad organisation, but responsibility for all three was claimed by the

French terrorist group Action

6 kg of home-made chlorate and

sulphur-based explosive ap-peared to have been used in the

restaurant attack, according to initial investigations.

in Belgium, France.

BY DAVID WHITE IN MADRID

SPANISH authorities believe Islamic extremists are most likely to be responsible for a bomb explosion which killed 18 people and injured 82 at a restaurant on the outskirts of Madrid on Friday night. It was the worst terrorist attack in recent Spanish history. Those killed by falling

Those killed by falling masonry were all Spanish, although the restaurant was frequented by American servicemen and their families from the nearby U.S. Torrejon air

Sr Jose Barrionuevo, the Interior Minister, said yesterday that accidental causes had been ruled out and that police were treating a claim made in Beirut on behalf of the Islamic Jihad organisation as the "most reliable." Other hypotheses, most discarded.

The Beirut claim was initially received with scepticism by Spanish foreign ministry officials; but the Madrid bomb-ing could add to evidence of links between Lebanon-based

links between Lebanon-based terrorists and European extremist organisations which have recently carried out attacks against Nato personnel and installations.

The Beirut statement said the attack was the second carried out recently by Islamic Jihard—presumably referring to the bombing of a Paris cinema during a Jewish film festival last month—and that attacks would continue until the last Israeli soldier left southern Lebanon. They said it initial investigations.

The explosion took place in or near the toilets by the bar at the front of the bullding. About 200 customers were in the restaurant at the time, including a number of American diners had left by 10.30 pm when the bomb exploded, but 14 U.S. personnel and family members were among the injured.

The restaurant, El Descanso (the restaurant, El Descanso about six miles from the base, near the city's civilian airport southern Lebanon. They said it near the city's civilian airport was a reprisal for the car bomb on the main highway to which killed 92 people in a prewhich killed 92 people in a predominantly Shi'ite Moslem the scene of frequent demonsuburb of Beirut on March 3. strations against the U.S. pre-Previous attacks claimed by sence and against Spain's Islamic Jihad—which Middle membership of Nato.

East experts believe may be a Last December the Basque East experts believe may be a cover for different groups rather than an organisation in its own right—include those damaging an oil pipeline which against U.S. and French troop services U.S. military installa-quarters and against the U.S. tions in Spain. This was part embassy in Beirut in 1983 and

Sr Barrionuevo said about Germany, Portugal and Greece.

BY OUR MADRID CORRESPONDENT

Socialists start revision

of rejected abortion law

THE FIRST moves are under new law could go through par-way to formulate a new law liament this year was chal-

permitting abortion under certain limite deircumstances on Spain. They follow Thursday's controversial rejecting by the were made of the sentence of the properties of the pro

reform passed 18 months ago by penal code removing penalties the Socialist-dominated parlia- for abortions undertaken in the

celebrated their first taste of of the foetus.

victory since the Socialists came to power in 1982, Sr Gregorio Peccs-Barba, Speaker in the lower House, proposed that Congress's justice committee start work on a revised law were written into the law protecting the "right to life" of the foetus.

Leading government figures said the judgment did not prevent the legislation of abortion in these circumstances, provided that extra guarantees were written into the law protecting the "right to life" of the foetus.

which could get around the teeting the "right to life" of court's objections.

cases of rape, danger to the conservative Catholics mother's life and malformation

rejects Moscow condolences

Albania

By Leslie Collit in Berlin and

MR RAMIZ ALIA, the newlychosen leader of Albania, has brusquely rejected an approach by the Soviet Union to improve relations which were severed by Albania in 1968.

Mr Alia was chosen on Saturday at a central commit-tee session of the Albanian Workers' Party to succeed Mr Enver Hoxha, who died on Thursday after ruling the highly independent Com-munist nation for 40 years.

Radio Tirana said the Government had rejected a condolence message sent by the Soviet Union in which Moscow expressed the hope that relations betwen the two countries would improve. A similar condolence telegram sent by Washington was also flatly rejected by the Tirana

Albania, however, apparently did not rebuff a telegram from the Chinese leadership, expressing the wish to nor-malise relations, severed in the mid-1970s.

This was China's first move in what is expected to be a concerted effort to rebuild ties with Albania following ties with Albania Mr Hoxha's. death.

News of the death was reported within hours by the official Chinese news agency, Xinhua, with details of Mr Hoxha's achievements. The Communist party newspaper, People's Daily, reported the event on its front page with a portrait in a black border.

Zhao Ziyang, the Chinese Premier, and Li Xiannian, the President, sent a joint mes-sage of condolence to his successor, "Comrade" Ramiz

The Chinese leaders said they were "chocked to learn of the untimely passing away of Comrade Enver Hexha.

"His death is a great loss to the Albanian people. We wish to express our profound condolences to the Albanian Government and people," they

The Chinese reporting of the death and the friendly language of the message is surprising considering the vitriolic abuse which Mr Hoxha had heaped on China and its leaders since the schism between the two countries in 1977. The Chinese have been

making tentative approaches to Albania over the past two years in an effort to revive what was once one of the strongest alliances in the Socialist fraternity.

China is seizing the oppor-tunity of the change of leadership to press barder for expanded economic and Mr Ramiz Alia is regarded

as much less of a hard-line Marxist than Mr Hoxha and has suggested recently that Albania, the poorest country in Europe, needs to build its failing economy by opening more to the world—China's

Howe sets human rights precedent

BY DAVID BUCHAN, EAST EUROPE CORRESPONDENT

SIR GEOFFREY HOWE'S East European tour, which ended in Warsaw on Saturday, not only cast one of the lowest-key per-sonalities in the Thatcher Government in new and dramatic light, but may also mark a precedent for the way visiting Western ministers handle human rights issues in the Soviet bloc.

The British Foreign Secretary spent much of his time in East Berlin, Prague and Warsaw discussing bilateral issues and arms control. Sir Geoffrey sidestepped efforts by his East European counterparts to make him criticise openly the U.S. for its Star Wars programme and pointed out the flaws which the West sees in Mr Mikhail Gorbachev's Euro-

But, it was human rights that became the dramatic theme of the Howe tour: inevitable when a British minister once unkindly dubbed "Mogadon Man" is dubbed greeted by a night-time crowd Certainly all the "non-at the Popieluszko grave in officials" he met, whether Warsaw shouting "Long Live cardinals or dissidents, believed

missile freeze plan.

helped Sir Geoffrey towards the strengthen their hand in the sharper public image he has been seeking but has not so far authorities against political and gained from undoubted diploreligious discrimination.

THE STRESS which Sir Geoffrey Howe put on human rights during his two-day visit to Warsaw has drawn private praise from Cardinal Josef Glemp, the Polish Primate, and Solidarity sup-porters whom the British Foreign Minister was able to meet here, writes Christopher Bobinski in Warsaw.

The authorities, meanwhile, have played down the visit in the Polish media to signal their displeasure at Sir

matic achievements on Hong Kong and Gibraltar. Whether his talks with leading churchmen in Eastern Europe, the meeting of his officials by night with Charter 77 civil rights repre-sentatives in Prague and his visit to the Popieluszko grave have substantially advanced the cause of human rights in that region is less clear.

ingland." that being recognised by a Clearly, the past week has British foreign secretary would

Geoffrey's visit to the grave of Father Jerzy Popieluszko, the murdered pro-Solidarity

However, Olszowski, the Polish Foreign Minister, did appear on Saturday morning at War-saw's rebuilt royal castle, to which Sir Geoffrey donated a picture. Poles, however, are still keen to improve relations with Britain because of the need to raise new government credits in the West.

It was also appropriate that human rights should be so raised in the year of the 10th anniversary of the Helsinki accords and a special review next month in Ottawa of their human rights provisions.

the Prague authorities dislike any foreigners, particularly

reliably low-key, should have behaved precisely like his junior minister, Mr Malcolm Rifkind, last autumn in having special meeting with senior Solidarity sympathisers and visiting the Populuszko tomb. Sir Geoffrey and his dele-

gation, for their part, calculated that the East SIG BETTINO CRAXI, the European desire for a British Italian Prime Minister, yester-

first since martial law. However, Sir Geoffrey found that all three governments he visited last week were ready human rights provisions.

Sir Geoffrey, to the extent that he recognised and perhaps encouraged dissidents and beleaguered churchmen, has the contrasts sharply with

incurred disapproval from his the mind-your-own-business host governments. The latter's attitude always taken by the degree of tolerance varies. But the Prague authorities dislike rights complaints and, in the control of the complaints and in the control of the complaints. view of British officials, bodes official ones, meeting with well for continued dialogue Chartists; the Polish Government is dismayed that Sir Europe despite some inevitable Geoffrey, whom they thought ructions from the Howe trip. well for continued dialogue between Eastern and Western

Italy's trade deficit continues to worsen

By Alan Friedman in Milan

foreign secretary to visit was such that they could get away with quite a lot on human more-than-doubled February with quite a lot on human rights. This desire will not be so great now that East Concern about the strength of Germany has had its first British foreign concern. British foreign secretarial visit it would be possible to avoid a ever. Czechoslovakia its first national referendum on wage for 20 years and Poland its indexation, the Italian Government's statistical office announced that the country's trade balance was still deteriorating.

> In February, the trade deficit totalled L3,157bn (£1,28bn), compared with denorit intailed 13,1310n (£1,28bn), compared with L1,392bn last year. This means the Italian trade deficit for the first two months of 1985, at L5.867bn, is close to one-third of the record L19,200bn deficit for the whole of last year.

The problem is that imports spurred by last year's 2.4 per cent growth in the Italian economy, are still rising much faster than exports. Energy imports, in particular, are damag-ing the Italian trade performance, although the country continues to do well with its exports of textiles, clothing, and engineering

In February, Italy's exports grew by 20.9 per cent to L11.298bn; but imports were up by 34.7 per cent for the month, to L14,455bn.

The Milan trade fair, which as its theme (with exhibits ranging from robots to fibre Gandhi at tete-a-tete talks lasting one hour on Saturday that Britain, like India, was deeply concerned by the "very serious problem" created by a small number of Sikh extremists in Britain. exhibition.

BY ROBERT MAUTHNER, DIPLOMATIC CORRESPONDENT, IN RIYADH I have been made very welcome as Mrs Thatcher could go in indeed. I had excellent talks answering India's demand that with leaders of each of the Britain should take steps to countries I have visited. In each curb the activities of militant MRS MARGARET THATCHER, Minister wanted to review the entire relationship between the two countries in the context of the new Saudi Arabian budget and the forthcoming five-year

PM and Saudis review economic links

the Prime Minster, yesterday had talks here with King Fahd of Saudi Arabia during the last stopover of her 11-day, 20,000mile tour of seven countries.

Her talks with King Fahd covered mainly international ssues, such as the state of the world economy, with special reference to the oil and petrochemicals market, the Middle East situation, particularly the Arab-Israeli conflict, and bi-lateral economic relations be-

plan.

The British Government and British industry are anxious to improve their position on the Saudi Arabian market, and have been placing increasing been placing increasing emphasis on joint ventures Mrs Thatcher, before leaving for London, issued a statement saying she looked back on the tween Britain and Saudi Arabla. tour with considerable satisfac-Officials said that the Prime tion. "Everywhere I have gone,

case, my aim has been to deepen our economic and political relations, and I believe that this will be the outcome of my tour."

In New Delhi, she gave an undertaking to Mr Rajiv Gandhi, that her government would do everything "in its power" to see that militant Sikhs living in Britain would not plan violent action in India.

curb the activities of militant Sikhs living on British soil, It has always been the UK Government's position that action could only be taken if the Sikhs in question broke British law.

Mrs Thatcher assured Mr

The undertaking was as far Britain. Combatb

However, his forecast that a covered by these cases. Another year of independence. Another year of success. At Henderson Pension Fund Management, we owe allegiance to no outside

This demonstrable absence of conflict of interest has resulted in vetanother successful year in which more and more trustees have turned to us. And there are a number of other strong reasons.

Investment Expertise

With over 50 years' experience, the Henderson Group now looks after funds of £2.5 billion, spread across authorised unit trusts, offshore funds, investment trusts and private portfolios, with £1.2 billion of this in pension funds and exempt trusts.

International Outlook

Being independent doesn't mean being insular. Of the £2.5 billion we manage, some £1.2 billion is currently invested overseas across all the major stock markets of the world. Five of our eighteen investment managers specialise in specific overseas areas.

Independence

We are an independent publicly-quoted company and our only business is investment management; our only income, the fees we earn from it.

Fair Charging

Our fee scales offer good value. We make proper allowance for in-house exempt trusts

included in pension portfolios. Benefits we receive from stock exchange dealings or money left on deposit go fully to our clients' accounts. Quality of Service

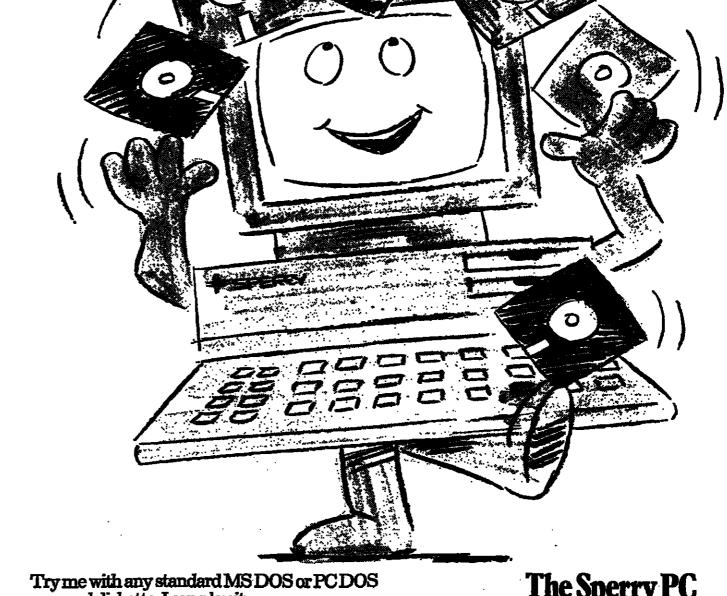
Our service is both comprehensive and personal. In addition to handling all the administrative aspects of international investment, we offer close communications, quarterly review meetings, written reports, valuations and transaction details.

Consistent Performance Record Over the last 5 years to end 1984, the average growth record shown by all pension funds under our management has been +195.4% (+24.2% p.a.). Over the same period, the number of pension funds managed by us has grown from 14 to 7L

If you are responsible for a pension fund of £5 million or more, why not call Colin Day on 01-638 5757 for further details?

Or write to him at Henderson Pension Fund Management Limited, 26 Finsbury Square, London EC2A 1DA.

Henderson. The Investment Managers.



programmed diskette. I can play it.

Stack that up and you'll find I'm talking about the largest range of software written for any PC.

You can't get any more compatible than that. And I can show you just how well we can get on together, if you just call me, or fill in the coupon.

tryme

The Sperry PC What the Personal Computer should have been in the first place.

}	SPERRY LIMITED, INFORMATION SYSTEMS GROUP DEPT. DE2 SPERRY CENTRE, STONEBRIDGE PARK, LONDON NW10 8LS 01-961 3616 Please send me details of the Sperry PC.
	Position
	Company
	Address
j	
ļ	Postcode
	Telephone SPERRY
į	O 1984 Sporty Ltd. Sporty PC is a trademark of the Sporty Corporation. Sporty Ltd. is a gubridiary of the Sporty Corporation U.S.A. FT 15/4/85

BY ANTHONY MORETON, TEXTILES CORRESPONDENT

part of trade in textiles and

clothing, Hong Kong claimed it

"It took from the less poor

Reducing Hong Kong's share of the British market meant

that the beneficiaries were ex-clusively European Comunity

Every textile or wool product sold in the U.S. must bear a conspicuous label informing customers of its country of

origin, under regulations an-nounced Friday by the Federal

Trade Commission, AP reports from Washington.

The new rules, required by Congress, will take effect 30

days after they are published shortly in the Federal Register.

From then on, garments or yarn

or their packages must bear labels such as "Made in U.S.A.,

CONTINUED British import agreement that regulates a large protection against clothes and textiles from low-cost countries would only marginally help the was both dishonourable and home industry, according to the ruthless. Hong Kong Government. The British problem is the result British problem is the result to give to the poor while leav-of goods coming in in increasing ing the rich untouched," the quantities from advanced countries, it states.

Ing the from anticontest, review stated. This was a reference to the policy by which

In a review of the British newly industrialised countries textile industry published today such as Hong Kong South Hong Kong claims Britain's Korea and Taiwan had to give trade deficit with OECD countries and their share of the tries, largely Westerz Europe and the U.S., last year, was nearly twice that with its low-

cost, Far Eastern suppliers. Before 1981, the deficit was the other way round, but in the last four years the position had changed radically. "It is imports from OECD countries that are the main problem for Britain," it states.

"Three-quarters of the Tree-

"Three-quarters of the UK's \$1.3bn deficit with the OECO was accounted for by the EEC, where the UK should be competitive by virtue of its relatively low wages, particularly in the clothing industry."

Restricting imports of clothing, in particular, from cheap suppliers led to a rise in im-ports from other European suppliers, countries with which the UK was not competitive.

In a strong attack on British "Made in Korea" to identify policy towards the Multisbre the country where the manu-Arrangement (MFA) the world facturer obtained its materials.

for China

By Michael Donne,

ROLLS-ROYCE has won a filsm order from the China National Aerotechnology Import and Export Corporation (Catic) for three gasturbine electricity generating sets for an ollifeld development in north-west China.

This is the second such

This is the second such deal in 12 months, the first being for an £8.3m generat-ing station for a refinery in north-east China.

north-east China.

The latest order follows the recent British trade mission to that country, beaded by Lord Young, during which Mr Dennis Jackson, Rolls-Royce's director of corporate strategy and international efficient and international affairs signed a memorandum of understanding with Catic for a major growth in the company's sales to China.

The latest deal will provide

the Zepu Petroleum and Chemical factory with three themical factory with three 12,000 kw co-generating systems, using industrial derivatives of the Spey aero-engine. The order will be fulfilled by Rolls-Royce's Industrial and Marine Division, based at Ansty, near Coventry.

Glass plant order

PPG, the U.S. glass-making rompany, has wen a contract for a \$50m float glass manu-facturing plant in China that will be built in collaboration with China Southern Glass, a company owned by a number of Chinese investors, Tony Dodsworth reports from New York.

Rolls-Royce gas turbines India lifts more trade restrictions

INDIA will continue liberalise its trade for the next asking). three years following the lifting mports and exports in a policy announced late last week

further ahead with the assurance that policy will not change every year.

Liberalisation of India's trade policy, particularly on imports, began about six years ago and restrictions have been progressively eased. The main changes in this year's policy are to put in the policy would accelerate export base. This indiates the technological upgradation and launching of "the import-export pass book scheme" for manutaneously help improve the facturer exporters to provide external trade position."

India's trade deficit shows inputs for export production.

Other parts of the policy provide for the "decaration" in this year's policy are to put signs of remaining at the high Other parts of the policy promore items on the "open level of \$5bn (£4bn) a year. vide for the "decanalisation" general licence" (for which im-

presented the policy to parlia-

ment last Friday, said it sought For the first time, the environment annual trade policy has been replaced by a three-year one so that businessmen can plan krishna Bajaj, president of the Industry circles have applauded the policy. Mr Rama-krishna Bajaj, president of the Federation of Indian Chambers

to port licences are given for the exchange reserves are rising pulsory imports by government-next asking).

exchange reserves are rising pulsory imports by government-operation owned companies) of 53 items. The pulsory imports by government owned companies of 53 items. The pulsory imports by government owned companies of 53 items. The pulsory imports by government owned companies of 53 items. The pulsory imports by government owned companies of 53 items. of many more restrictions on Finance and Commerce, who from Indians living and working be imported by the public abroad. The reserves are at the sector Metals and Minerals relatively comfortable level of Trading Corporation. \$5.5bn, worth roughly five months' imports.

make imports and exports easier for increased industrial producof Commerce and Industry, said tion and to strengthen the the policy would "accelerate export base. This includes the export base. This includes the launching of "the import-export pass book scheme" for manu-

Under the policy, 201 items of industrial machinery have been The policy introduces a num-included in the list of capital ber of innovative changes to goods for import under the "open general licence" to help meet modernisation and export promotion. The main sectors to benefit from this are auto-mobiles, oilfield services, leather, electronics, jute manufacturers and canning.

The procedure for allowing imports of capital goods on global tender basis in respect of some key industries con-

Daewoo in \$337m deal with Libya

By Steven B. Butler in Scoul

DAEWOO Corporation has signed a \$337m (E-68m) con-struction contract for utilities at the Uraha area of Benghari,

The contract brings to \$430m the total of new contracts that Daewoo has signed in Libys this year alone. Daewoo has said that it was unaffected by the recent cancellation of many contracts by the Libyan Government. although a company official did say the Benghazi contract had been scaled back.

The contract calls for Daewoo

to construct sewerage and water supply facilities, roads and street lighting, and to install electrical cable, telephones And an exchange facility, and a pumping station. The work would start immediately and is scheduled for completion by

April 1990. According to the Overseas Construction Association of Korea, in the first quarter of the year. Korean construction companies signed a total of companies signed a colar of \$1.1bn of new overseas construc-tion contracts, an increase of 35 per cent over the same period of 1984.

Italians win contract

ITALIMPIANTI, the Genoabased plant engineering com-pany which is part of the Iri-Finsider state holding group. the world but its robot produc-ing industry is very fragmented Supplying the Factory of the Future; Product and Market Opportunities to 1990, Planning Research & Systems, 24 Old Bond Street, London W1X 3DA.

Finsider state holding group, has won a L20bn (£Sm) con-tract to build a new system for the transport of materials at Egypt's El Tabbin steel plant, Alan Friedman reports from Milan.

Limits to Japan's automation potential

JAPAN'S MAKERS of factory automation equipment are markets for factory automation equipment are markets for factory automation equipment. For example, the important in world markets as have that country's producers of other types of machinery, according to a study by a group of London consultants.

The study of markets for national more than double by 1990 to robots, computer-aided design systems (CAD), flexible manustation in the four main Western European countries. West Germany, are problems back to Japan, and that is not considered good enough."

The study of markets for factory automation equipment. For example, the number of FMS instalation in the moment, users tell us that the moment, users tell us that the moment, users tell us that the moment are problems back to Japan, and that is not considered good enough."

The study of markets for factory automation equipment. For example, the number of FMS instalation in the moment, users tell us that the moment are problems back to Japan, and that is not considered good enough."

The study of markets for factory automation equipment are markets for factory automation in the moment, users tell us that the moment users tell us that the mome systems in the four could reach 45,000 compared with 10,000 today. Even faster growth is

other's markets, especially in FMS, according to Ms Scholfield.

General Electric Calma—are all U.S. based, and Ms Scholfield doubted that would change in the near future. "In the long term there are three Japanese companies, Nippon Electric, Mitsubishi and Fujitsu, that Mitsubishi and Fullisu, that could pose a threat," she said. In robotics, Unimation of the U.S. remains the world leader with over 8,000 units installed worldwide. Asea of Sweden and Cincinnati Milacron follow close behind. Japan has the largest number of robot installations in the world but its robot produc-

Shippers concerned EEC

rules favour shipping lines

BY ANDREW FISHER, SHIPPING CORRESPONDENT THE British Shippers' Council : carried by conference lines.

It has told the UK Government of its fears that the pro-posed EEC regulations "will be seen as unduly protectionist of the Community fleet, even to the detriment of Community

But the BSC welcomed the fact that the proposed EEC maritime competition regulation had been revised so as to stress the need for competition among companies in liner (scheduled cargo service) shipping.
The EEC Commission set out

its shipping policy proposals in a report including new a report including new Major lines with big expansion measures "required to promote the Community's trading and shipping interests." Since 1975,

Another key concern of the flags has fallen from 29 to around 23 per cent.

The EEC proposes to apply

(BSC), representing cargo exporters and importers, is worried that new draft EEC maritime transport rules lean too far towards the protection of European shipping lines and take too little account of shippers' needs.

It has told the TEE Council carried by conference lines.

The BSC was unhappy, however, at the EEC proposals on unfair competition and pricing. While designed to combat unfair tactics by non-Community lines, the BSC commented: "It grants immunity to Community shippers' needs. and will allow any member state to protect its own national lines to the derriment of the other member states."

The EEC report pointed out that while the world liner fleet -most traffic is containerisedrose by 21 per cent in terms of tonnage between 1975 and 1983, that of the EEC fell around 7.5

Non-EEC countries plan rapid fleet increases and world average container fleet utilisation is likely to drop from 91 per cent in 1981 to 77 per cent in 1986.

the amount of world merchant BSC is the inclusion in the EEC tonnage under EEC member policy of rules governing 100 flags has fallen from 29 to per cent loyalty under which The EEC proposes to apply the provision of the Treaty of Rome to shipping. But the conference system would be given a broad exemption, because of its accepted role in liner markets. About 60 per cent of UK shippers' seaborne trade is and treatment for shipping all their cargoes with a conference on any route. The BSC favore ments, which some conferences are now prepared to offer. "100 per cent loyalty is a complete anachronism," said the BSC. and treatment for shipping all

SHIPPING REPORT

Dry cargo rates improve in the Atlantic market

BY OUR SHIPPING CORRESPONDENT

SHIPPING markets were fairly Iran-Iraq hostilities, no details SHIPPING markets were fairly lively last week, despite there being only four days of trading as a result of Easter. Dry cargo rates continued to improve on the Atlantic, while it was the small- and medium-sized ships which kept up activity on the tanker market. Galbraith's, the London ship-

Galbraith's, the London ship-broker, reported that new en-quiries on the Atlantic were encouraging, though the Pacific remained quiet with little fresh business. The iron ore market strengthened, with Wednesday seeing the largest volume of new business in a single day that has been experienced for several months.

several months.

In the oil shipping sector, VLCC (very large crude carrier) movements from the Gulf were again limited. The only reported such fixture was of the World Eminence for a 240,000 ton cargo to Taiwan at Worldscale 24, similar to previous levels. Despite rumours of some traders looking for vessels from

Iran's Kharg Island terminal, made risky by the continued

of any business emerged.

There was more activity in medium-sized tankers form the Gulf. Galbraith's said it fixed an 88,000 ton cargo for a big UK oil group from the Gulf to Noumea on the Pacific island of New Caledonia and Australia of Noumea on the Facine Island of New Caledonia and Australia at Worldscale 50, while an 80,000 ton cargo of fuel oil was fixed from Kuwait to Italy at World-

IA

l s

 ir_{ii}

M. II

An,

 λ

dig

١.,

 $c_{\Gamma_{i}\gamma_{i}}$

19:5

11.15

scale 70, The most active oil loading The most active ou loading area was the Mediterranean. But with plenty of ships around to take cargoes, rates showed no significant movement. Ships of 80,000 tons had to take low levels of scarcely above Worldscale 60 for cross-Mediterranean

trips.
Texaco needed to pay only Worldscale 30 for 122,000 tons of crude oil from the West Mediterranean to the East Coast of the U.S. There was also a fair amount of activity from West Africa. In the Caribbean, there was plenty of business, but rates were again static because of the number of ships available.

World Economic Indicators RETAIL PRICES (1980 = 100)

					% change over previous
_	Feb. '85	Jan. '85	Dec. '84	Feb. '84	year
W. Germany	120.5	120.0	119.3	117.8	2.3
France	154.7	153.9	153.1	145.4	6.4
Ítaly	184.7	182.7	180.9	169.4	9.0
Netherlands	121.0	120.6	120.9	118.3	2.3
Belgium	138.7	137 <u>-2</u>	136.4	131.6	5.3
UK	137.5	136.4	135.9	130.5	5.4
U.S.	128.6	128.7	127,8	124.2	3.5
Japan	113.0	113.8	113.2	111.3	1.5
-				Source:	Eurostet

BY IAN RODGER

facturing systems (FMS) and machining cells suggests that forecast in Japan and the U.S. system design and engineering Ms Vanessa Scholfield, a direc-

machining cells suggests that system design and engineering are becoming increasingly important in these sectors, and that the Japanese have great difficulty in providing engineering services a long way from home.

The study, by Planning Research & Systems (PRS), in Europe and the U.S. if they in Europe and the U.S. FMS, according to all scholled. Already, the FMS and cell supplied industry is largely nation-based, and the study profiles the leading companies in Europe, the U.S. and Japan. The robot and CAD markets would need to establish research and development bases in Europe and the U.S. if they



Serious investors with £10,000 or more can now earn 10.25% equal to a compounded annual rate of 10.65% -15.21% -15.21%

Halifax Premium Xtra.

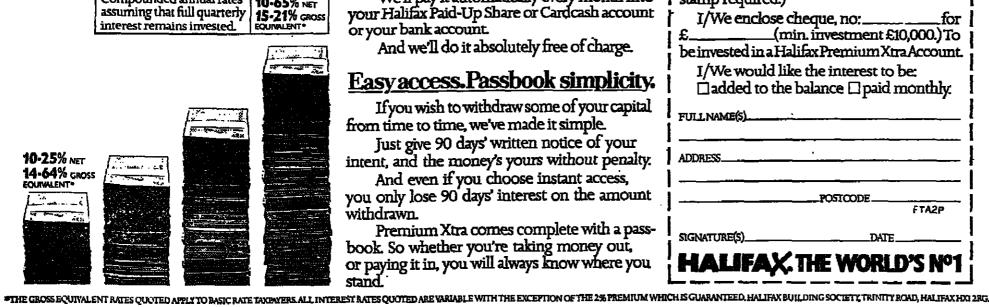
The world's NO1 building society is providing a rare opportunity for serious investors. A new high-interest account which guarantees a full 2% premium over our variable basic

rate for a full three years. It's called Premium Xtra. And the minimum investment is £10,000.

As you can see, it pays a remarkably rewarding rate of interest-currently 10.25% net equal to a gross equivalent of 14.64%.* But that's only

Compounded four times a year. Compounded annual rates 10-65% NET

half the story.



Most other building society accounts pay interest half-yearly.

With Premium Xtra, we have doubled that, So four times every year, for three years, your interest is added to your capital, and begins earning interest on itself

At current rates, that brings your return up to a compounded annual rate of 10.65% net which is equal to a gross equivalent of 15.21%."

Monthly Income.

Premium Xtra gives you the opportunity to convert your interest into a regular monthly income.

We'll pay it automatically every month into your Halifax Paid-Up Share or Cardcash account or your bank account.

And we'll do it absolutely free of charge.

Easy access. Passbook simplicity.

If you wish to withdraw some of your capital from time to time, we've made it simple.

Just give 90 days' written notice of your intent, and the money's yours without penalty.

And even if you choose instant access, you only lose 90 days' interest on the amount

withdrawn. Premium Xtra comes complete with a passbook. So whether you're taking money out, or paying it in, you will always know where you

Strictly Limited Issue.

This highly attractive investment is only available on a strictly limited issue basis. So if you wish to take advantage of the excellent return offered by Premium Xtra, we urge you to fill in the coupon and open an account now.

And remember from April 6th there is absolutely no limit on the amount you can invest. There's never been a better time to get a little Xtra help with the future.

— Halifax Premium Xtra. —

To: Halifax Building Society, (Ref IKW), Freepost, Trinity Road, Halifax HX1 2BR. (No stamp required.) I/We enclose cheque, no:___

(min. investment £10,000.) To

be invested in a Halifax Premium Xtra Account. I/We would like the interest to be: □added to the balance □ paid monthly.

BUSINESS LAW

State regulation of anti-trust law prevails in U.S.

BY A. H. HERMANN, LEGAL CORRESPONDENT

THE SWEET sound of reason immunity against federal anti-heard recently from several U.S. trust laws. In Laker, as in extra-territorial application of anti-trust laws and reported in this column on March 14, 1985, was mightly reinforced a fort-night later by the highest authority, the Supreme Court of the U.S.

166(例) 前之

constantly reappearing question, whether a state policy or direcwhether a state policy or direction can provide immunity to a private company accused of price-fixing or another conspiracy prohibited by the Sherman Act. The court abandoned the settled view, highlighted by a long series of leading cases, that a private party is not entitled to state action immunity unless the state compelled it to act in violation of the federal antitrust law.

regulation in the relevant market, and if it actively supervises the unlawful conduct by evaluating the reasonableness of the prices charged."

The majority justified this reversal of law by saying that it is more consistent with the principle of federalism, and that it also better serves the objectives of anti-trust laws because to recognise as defence only such acts of state which compel the party to act anticompetitively means to invite the states to make mandatory rules when otherwise they might be satisfied to issue noncompulsory guidelines.

Reading this decision in London one immediately thinks of the Laker litigation which of the Laker litigation which now seems to be approaching settlement. The Supreme Court's decision concerns price fixing by "rate bureaux" of motor carriers operating in four states of the U.S. under the supervision and with the approval of the Public Service Commission in each cite. Commission in each state.

The collective rate-making by these bureaux is authorised but not compelled by the res-pective states. Common carriers are required to submit proposed rates to the appropriate Public service Commission for approval, and the rate becomes effective if this state agency takes no action within a specified period of time. If a hearing is scheduled, however, a rate will become effective only after agency approval. The State Public Service Commission thus have and exercise ultimate authority and control over all intrastate rates—in a manner not altogether different from that exercised by the UK and U.S. aviation authorities over Service Commission for approval, and the rate becomes effec-U.S. aviation authorities over private agreements between air-lines.

The act of state which the supreme Court considered here was therefore the act of a state.

That much for the possible that much within the Union, providing wider implications

trust laws. In Laker, as in other extraterritoriality cases, the acts of state at issue are those of foreign states. Never the less, the doctrine

which the U.S. courts apply to truly extraterritorial issues was originally developed when courts dealt with domestic issues of the sort which were constantly reappearing question, whether a state policy or direction.

From now on, to use the words of the dissenting Justice Stevens, "... a state may exempt price-fixing from the federal anti-trust laws if it clearly articulates its intention to supplant competition with regulation in the relevant ample against an acquisition of predatory pricing designed to annihilate a competitor. As the Supreme Court requires that there is not only an approval of price fixing but also an active supervision and evaluation of reasonableness of the prices by the state, one could argue that the decision does not provide protection for any sort of price fixing and particularly not for such price fixing which is predator, coercive or discriminatory. There seems to be, however, little doubt that the present decision should greatly because it was not compelled. however, little doubt that the present decision should greatly help BA and British Caledonian to defend the class actions brought on behalf of U.S. air reserverse its Parker decision but controlled to Parker immunity because it was not compelled but only approved by the state. The Supreme Court did not reverse its Parker decision but controlled to Parker decision but the conduct was not entitled to Parker immunity because it was not compelled but only approved by the state.

passengers.

Although it would be daring to assume an automatic immunity for predatory pricing in general, in the particular case of Laker the new decision might help the defence by bringing the issue under the umbrella of the required state supervision.

Teverse its Parker decision but said it should be understood differently. It held that the federal antitrust laws do not forbid the states to adopt policies that permit but do not compel anticompetitive conduct by regulated private parties.

There were only two conditions expressed by the Supreme Court earliers.

authorities and by the Civil Aviation Authority in the U.S. Indeed, the U.S. authorities, which could review and dis-

ness of the prices charged," and substitute their own decision as to reasonableness, etc., for

Court's decision. Supreme Those interested in the U.S. judges' technique of law-making may like to bear a little brought as a criminal prosecu-tion against the Southern Motor Carriers Rate Conference and North Carolina Motor Carriers Association, operating as rate

bureaux and composed of common carriers in North Carolina, Georgia, Tennessee and Mississippi. The two rate bureaux were charged in November 1976 of violation of the Sherman Act. Their defence was that their conduct was exempt from the federal antitrust laws by virtue of the act of state doctrine as defined by the Supreme Court in Parker v Brown?. On that occasion the Supreme Court held that the Sherman Act was not intended to prohibit states

upervision. Court earliers. First, the Laker's complaint that the challenged restraint of competinew air fares of its competitors were predatory was first made before the tariffs were approved. It was considered and rejected both by the UK civil competitive conduct " competitive conduct competitive conduct competition must be "clearly articulated and affirmatively expected and affirmatively expected and competitive conduct competition must be "clearly articulated and affirmatively expected and competitive conduct competition must be "clearly articulated and affirmatively expected and competitive conduct competition must be "clearly articulated and affirmatively expected as state policy" and second, " the state must super
""" competitive competitions are considered and competitive conduct competition must be "clearly articulated and affirmatively expected as state policy " and second, " the state must super
""" competitive competitions are considered and competitive competitions are considered and competitive competitions are competitive competitions."

competitive conduct."

When other evidence conclusively shows that a state intends to adopt a permissive policy, the absence of compulsion should

WEST GERMAN NUCLEAR INDUSTRY

John Davies reviews Bonn's long-term options for disposing of spent fuel

W. Germany digs into its nuclear waste pile

built up a major network of nuclear power stations despite violent opposition, is pressing ahead with plans to deal with the growing volume of nuclear

Nuclear experts are pursuing a long-term strategy of making the country more independent in its ability to get rid of radio-active spent nuclear fuel—both through reprocessing for future use and through permanent

At present, most of West Germany's nuclear fuel repro-cessing is carried out by the French at their plant at La liague near Cherbourg, while smaller amounts have been treated in the UK and at the experimental reprocessing plant at Karlsruhe in southern

reactors so far have discharged between 1,000 and 2,000 tonnes of used nuclear fuel. This year the country's 16 nuclear power stations and three experimental reactors are likely to turn out about 500 tonnes of spent nuclear fuel, and by the turn of the contury the terminal of the century the total is

of the century the total is expected to have reached about 10,000 or 11,000 tonnes.

The Wackersdorf reprocessing plant is due to start up in 1993 and is reckoned to have capacity to treat only about 350 (VDEW), tonnes a year. Various options are open to handle the remainder, West German experts think.
Time is not thought to be a

Time is not thought to be a problem as nuclear fuel is now allowed six to seven years to cool down before reprocessing. "The 500 tonnes coming out of the reactors this year will not be available for reprocessing before about 1992; one nuclear industry experts said.

at Karlsruhe in southern Germany.

The West Germans now have decided to build their own commercial nuclear reprocessing plant at Wackersdorf, an old Bavarian mining village near the Czech border.

The plant will be built by a six-company consortium headed by KWU, other participants for nuclear plant and Hochtief, Dyckerhoff and Widmann, and Heitkamp on the construction side. The contract is valued at about DM 5.2bn (£1.4bn), and Right for reprocessing before about 1992," one nuclear industry expert said.

In the meantime, it can be kept at the reactors themselves, which have total storage capacity of 5,200 tonnes, equivalent to ten years' discharge. An intermediate storage centre with capacity of 1,500 tonnes has been built at about DM 5.2bn (£1.4bn), and Rhine Westphalia.

about DM 5.2bn (£1.4bn), and construction is expected to start in mid-summer.

West Germany's nuclear is to de outst at Anacos in Profit Controlled in Mestphalla.

Rhine Westphalla.

The first containers of radioactive used fuel arrived at Gorleben late last year, but the Asse salt mine near Wolfen-

SHARE OF ELECTRICITY GENERATED BY NUCLEAR

West German Source: Association of West German Electricity Undertaking (VDEW).

project recently suffered a set-back when a court granted an injunction halting deliveries, as part of the continuing legal battle between the nuclear in-dustry and anti-nuclear pro-

One long-term option is simply to dispose of the waste by burying it permanently underground. Some experts claim that this would be more economical than reprocessing. although others argue that there are some uncertainties, such as procedures for guarding and monitoring the state of the containers stored underground. Investigations are currently being made into the feasibility

of permanent burial of nuclear waste in the salt caverns at Gorleben. Other sites being examined, also in Lower Saxony, are the disused Konrad iron ore mine near Salzgitter and the

"There is a consensus that agreement that there will always be certain fuel that may ment. not be ideal for reprocessing and recycling. So the long-term strategy is to have a mix reprocessing in Germany and abroad, as well as disposal."

The West Germans are reluctant to predict their long-term use of the French reproterm use of the French repro-cessing plant at La Hague is being comes to pick it up."

Another option open to West Germany is that the Wackers-dof its capacity themselves by the century.

Another option open to West Germany is that the Wackers-dorf reprocessing plant could be extended to handle a greater

The West Germans take this claim seriously but at the same time they are apt to see the ence French as keen bargainers, out to secure long-term contracts. to secure long-term contracts.

Although anti-nuclear proln addition to existing testors will fight the project
arrangements for reprocessing with legal objections and

sibilities for permanent storage are China and the Soviet Union. China has already offered to degrees.

it would be unwise just to tions that the Chinese may go dispose of used fuel. But it ahead with a commercial would also be unwise to close nuclear reprocessing plant. The this option completely," one Bonn Government, however, is expert said. "There is general considered unlikely, for political reasons, to approve involve-

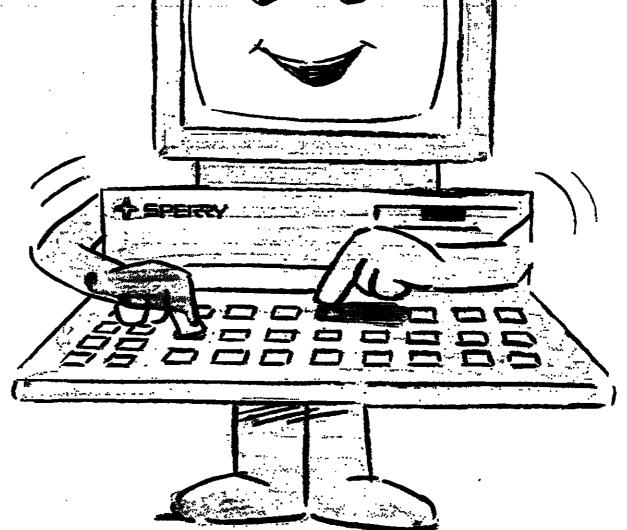
Nuclear experts point out that the Russians offered to allow Austria to send nuclear waste there. "The East Germans have done this for years and it works perfectly well," one expert said. "For them, nuclear fuel disposal is no prob-lem at all. The Soviet Union

volume of used fuel, or a second plant could be built. This would depend greatly on the experi-ence of the Wackersdorf pro-

arrangements for reprocessing in France and the UK, some West German nuclear experts point to the faint possibility of direct storage in the frozen north of Canada. "They may be interested in just drilling holes in the ice," one expert said.

With legal demonstrations, construction work is expected to start shortly after Bavaria gives formal approval in the middle of this year. To allay opposition, the contractors are expected to give proference to local workers and companies, but even so the huge project is bound to raise





Use me to demonstrate to yourself what keyboard comfort is really all about.

You'll find my light, positive touch even quieter and easier to understand than that other PC.

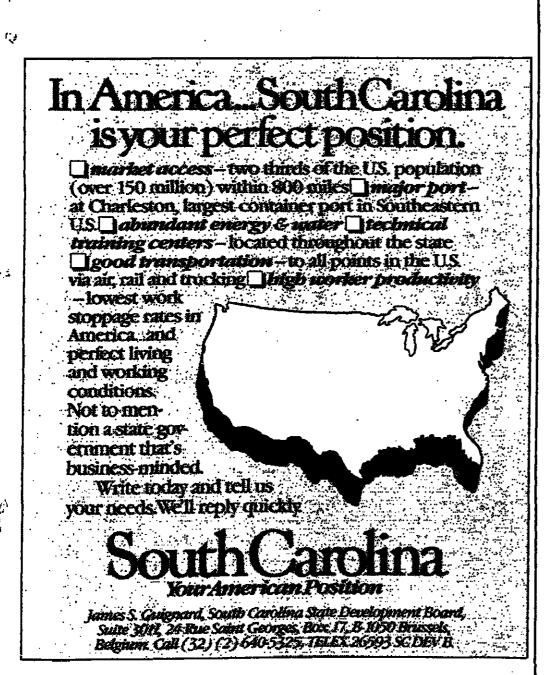
Now that is friendly.

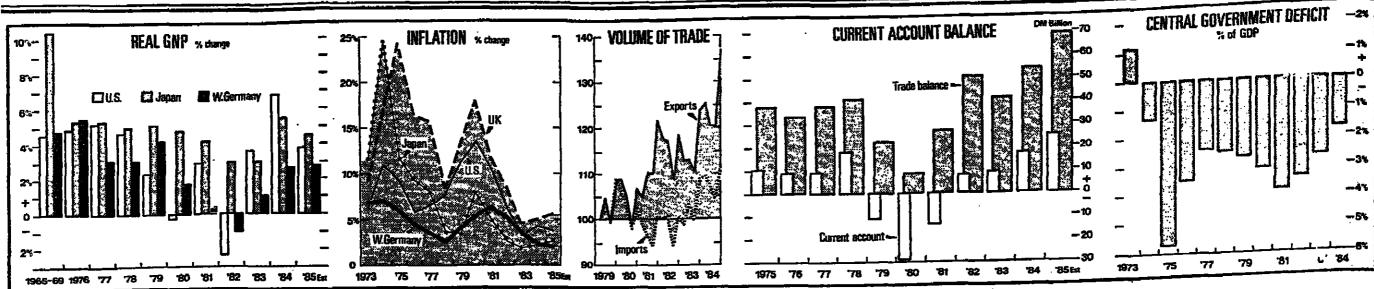
If you'd like to get your hands on all my details just call me or fill in the coupon.

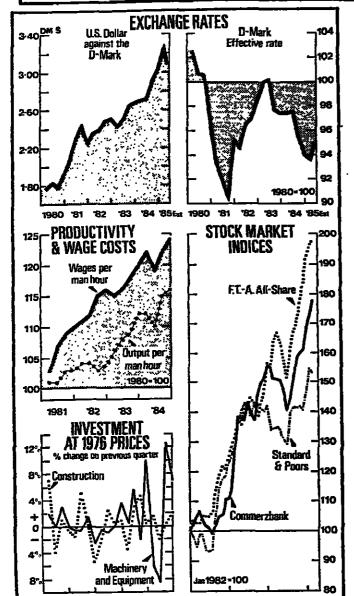
use me

The Sperry PC What the Personal Computer should have been in the first place.

YSTEMS GROUP DEPT: DE2 ARK, LONDON NW10 SLS 01-961 3616 C.
· · · · · · · · · · · · · · · · · · ·
SPERRY
F1 15/4/65







82 83

are the same, we carefully assess your precise

Working alongside a new client can take anything from a few weeks to several months - but every system is tailor made and every one a perfect fit.

Of course, you may not be ready for such a radical change just yet. But whether you choose a complete distribution system, or only a part of it, you could find yourself making significant savings—often between 10 and 15% of your normal

it might mean a fairly dramatic change of distribution techniques. But we think you'll find it

suits you. Give us a ring now, and we we'll arrange

needs before we put forward any proposals.

distribution costs.

your first fitting.

CONTRACT SERVICES

1980 181

Export growth fuels economic recovery

THE WEST GERMAN economy the 12 per cent for Europe as a whole, it is now above the U.S. rate. THE WEST GERMAN economy seems set to grow by 2.5 to 3 per cent this year following the recovery in 1984 when output rose by 2.6 per cent. Although this compares favourably with the European average of 2.2 per cent growth in 1984, it is very modest compared with the performance of the German economu in of the German economy in earlier periods of recovery and is below the rate

41 per cent of GNP compared in the U.S. and in Japan. Exports and investment have been the main contributors to the economic recovery. Real growth in exports increased by 9 per cent in 1984 and investment in plant and equip ment showed sharp increases in the second half of the year.

Inflation has continued to fall. The 2.4 per cent rate in 1984 was the lowest for 15 years and was well below the European average of 6 per cent. This helped to contain the rising cost of dollar imports chich make up one-third of the total imports bill.

Increased productivity has kept down increases in unit labour costs in recent years. Between the end of 1982 and the end of 1984, output per man hour increased by 11.5 per cent while wages per man hour increased by 7 per cent. With a fall of 5 per cent in

the effective exchange rate over this period, these factors, together with low inflation, have allowed Germany to maintain ils competitive position. The blight on the economic

scene is the rate of unemployment at 8.6 per cent, reflecting a common European problem. The rate has doubled in four years and although below

led generally to a "sucking in" of imports to the U.S. from –à significant factor in the 9 per cent incre After the growing govern in the polume of German ment deficits of the 1970s, which peaked at 5.2 per cent of GNP in 1975 and were still around exports. However, the U.S. market represents only 10 per cent of the market for German exports and the export growth reflects not only the dollar's strength but also a general 4 per cent in 1981, the ratio of Central government deficit to GNP has halved in the last

two years to 1.7 per cent.

COMPONENTS OF OUTPUT

rivate consumption

Government consump Machinery & equip inv 1.4

ource: Phillips & Drew

PORTFOLIO INVESTMENT

Construction inv.

Since 1980, the D-Mark has depreciated against the dollar by just over 60 per cent.

1974-83

average

1.6

5.9

1984

1.1

9.0

increase in export markets. Government debt now represents generated a record trade surplus of DM 54bn in 1984 which is forecast to increase further in 1985. The orowth in exports with the average of 51 per cent for the major seven OECD

The current account is now showing a growing surplus— DM 17.3bn in 1984, after the The strength of the dollar has

0.8 1.6 3.6 3.7 3.6 3.5 3.2 3.0 4.4 6.1 8.0 8.6

2.6 2.8 4.1 4.9 5.3 6.4 7.4 8.4 9.8

3.3 3.1 4.6 6.0 6.4 6.3 5.5 9.9

INEMPLOYMENT RATES

OECD

COMPETITIVE POSITION W. Japan Germany 86 102 108 100 177 103 Source: OECD, INTL Fin. Stats

deficits of 1979-81 when the deficit sank to a low of DM 29bn

The Commerzbank index has shown on almost steady increase since the beginning of 1983 hitting new highs in 1985. Much of the driving force

DIRECTION OF TRADE EXPORTS

behind this rise has come from foreign buyers whose new investment in shares rose from DM 7.9bn in 1982 to
DM 19.5bn in 1982 to
DM 19.5bn in 1984. Stock
market dealings have nearly
trebled over the past three
years to DM 234bn of which
DM 85bn represents dealings in

Dealings in bonds-domestic and foreign—continue to be the major item with a turnover of DM 132bn in 1984, reprenting nearly 60 per cent of

Overall there has been a substantial increase in net portfolio investment by

NET PORTFOLIO INVESTMENT DM (m)

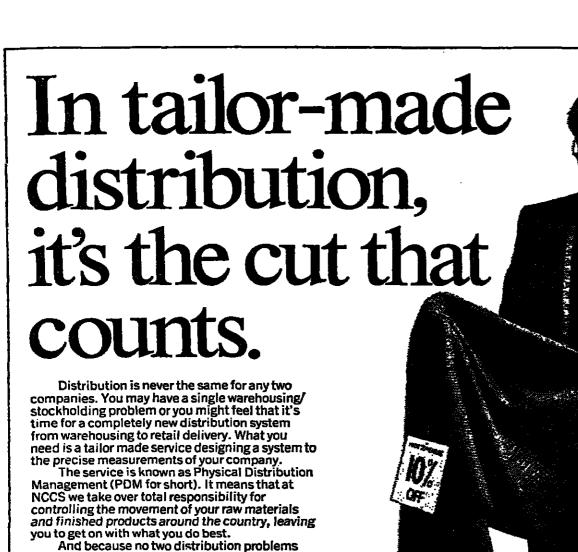
foreigners from DM 1bn in 1984, 1981 to DM 17bn in 1984, German investors continued to seek higher returns on investments, particularly bonds, in overseas markets, with capital exports climbing to DM 15bn in 1984.

For German incestors in equities, the weakness of the D-Mark against the dollar turned a lacklustre U.S. market performance in 1984 market performance in 1994 (local return 6.2 per cent) into a healthy D-Mark return of 23 per cent; the already substantial return of 26 per cent in Japanese equities increased to 35 per cent in D-Mark terms.

OIL

otal DM (bn)	197 231		- I	German invstm abroad (exports —)	nt For gn inv in Germa Comport +	пу			price \$ per barrel	total impe (value)	orts.
EC	45	. 44		358	6,509 -1,923			1978	14.7	10.0 8.2	
.s.	7.4	9.7		1,093 2,629	-1,571			1978 1979	14.7 31.3	10.3	
eveloping countries	9.4	8.1	1 13/0	-915 -5.407 -4,294	4,766 2,303 3,162			1980 1981	33.7 34.1	13.0 13.3	
pec	4.5	5.7	1979 1980	2.957 7.712	5,867 5,867			1982 1983	31.6 28.7	71.9 9.7	
entrally Planned Economies	6.5	9 4.	1981 B 1982	6,034 11,383	1,013 2,726	•		1984	28.1	9.8	
iource: Bundesban	k		1983 1984	10,361 15,025	13,576 17,178		Sou	rce: P/\	V INTL Fin. S	Stats	
TOCK EXCHANGE	TOANEA	CTIONS			CENT. GO	VT D	EBT &	GNP I	EQUITIES		
		s DM (bn				1974	1979	1984	Annual Re	Local D-r	hark
	omestic Bonds	Issuers Equities	Foreign Bonds	lsauers Equities	U.S.	41.3	39.8	46.0	Germany	11.0	11
972 40.3	10.1	22.1	6,4	1.6	Japan	17.9	47.6	67.7	U.S.		23
73 28.2	13.5	19.0	4.5	1.2	Germany	19.7	30 6	40.7	Japan		= 35
74 28.3 75 65.1	11.3 31.0	13.2 27.5	2.8 4.6	0.9 2.3 2.7	France	24.7	26.3	36.6	UK		22
76 61.2	27.8 35.5	24.9 27.5	5.7 8.8	27	UK	70 3	56.0	55.3	France		Z3
77 74.5 78 87.1	32.5 37.6	34.1	11.0	2.6 4.4	Source: Of	ECD			Source: P	hillips & D	-

Commentary by Our Economics Staff; data aniusis by Financial Times Statistics Unit; charts and graphs by Financial Times Graphics Department.



The Savile Row

Head Office: The Merton Centre.

45 St. Peter's Street, Bedford MK40 2UB. Tel: Bedford (0234) 67444.

1984 '85Est

Some good reasons why **Entrad's** spinning yarns

This advertisement has been published by Margan Grenfell & Co Limited on behalf of the Directors of Tootal Group plc.

Tootal has announced last year's figures:

1. record pre-tax profits of £22.85 million +33% 2. sharply increased earnings per share of 7.5p +32% 3. sharply increased dividends per share of 3.1p +24%

Tootal has also forecast strong progress for the current year:

4. pre-tax profits of not less than £27 million 5. earnings per share of not less than 9.3p 6. dividends per share of not less than 4.0p (covered 2.3 times)

+24% +29%

Tootal is in a strong financial position, with strong cash flow from operations and a low level of gearing.

IT'S EASY TO SEE WHY ENTRAD WANTS YOUR SHARES AT THIS PRICE.

vour own interests..

Tootal Our names add up to strength

UK NEWS

Government may sell off assets of munitions group

BY LYNTON MCLAIN

mer 1986 through a government andum adds. sale of individual assets and subsidiaries.

munitions workers and by opposition Labour Party MPs.

The option of selling individual tation of the company. factories or subsidiary divisions is stated in an agreed memorandum and Mr Fred Clarke, chairman of Royal Ordnance.

The possibility of a break-up remains despite the publicly stated intention of the Government that privatisation bill went through parl-Royal Ordnance should move into the private sector through a public offer for sale of shares in the com-

That is how British Telecom was privatised last year and how British Aerospace is to be privatised fully

"It is the intention and objective of the Secretary of State (for defence) that the company shall pass Ordnance Factories and Military into the private sector as soon as Services Bill became law, the Govcommercially and financially appropriate having regard to the business needs of the company," the memorandum says.

SYSTIME, the Leeds-based mini-

per cent stake in the company two

CDC has paid 60p a share to

Systime was one of Britain's larg-

Equipment, the U.S. computer

minicomputers made by Digital Gwent.

nance and help it with marketing. San Francisco.

BY JASON CRISP

ROYAL ORDNANCE, the 400-year- the Secretary of State, but "sales of old state arms and munitions com- assets or subsidiaries to third parpany, might be privatised by sum- ties are not excluded," the memor-

The Ministry of Defence confirmed that the "disposal of parts of That would mark the break-up of Royal Ordnance is a possibility. It the group long feared by the 20,000 has always been a possibility that parts could be sold separately, although the preferred course is a flo-

of understanding signed by Mr Mi-chael Heseltine, Defence Secretary, awaken fears already voiced in parliament

> There was fierce controversy iament last year. The House of Lords voted in July to force the Government to sell the 11 Royal Ordnance factories and two research establishments as a single

> Mr Geoffrey Pattie, then Defence Procurement Minister, said the Government would not accept the House of Lords defeat.

In October, just days before the ment. Mr Adam Butler: Minister for Defence Procurement, acknowl-The method to achieve that objective "will be kept under review" by change of heart."

edged that "the Government have had what might appear to be a change of heart."

agree on terms.

Control of Systime changes ren away from the banks.

The new 30th issue of certificates After a meteoric growth, Systime computer group, has been taken has faced a number of problems in-over by Control Data Corporation, cluding substantial losses in recent the U.S. group which bought a 43 money through a rights issue failed when the shareholders could not August and September last year. shareholders, taking its stake up to ISI Logic, the U.S. semi-custom

92.4 per cent at a total cost of about silicon chip maker, has confirmed £20m. CDC hopes to buy the rethat a £40m plant destined for maining shares in Systime at the Wales will now be built in West Ger-£109m of earlier certificates in March, National Savings is not dissame price and is to inject new fi- many, Louise Kehoe writes from satisfied with the outflow from the 19th issue of certificates. These Systime was one of Britain's largest computer companies selling mini and micro computer systems. It was founded in 1972 and grew very rapidly, selling systems based on Saxony, in preference to Cwmbran, have already begun to mature, but National Savings has twice this year raised the general extension rate it pays on certificates whose initial term has expired, and the present rate of 9.51 per cent tax free is openly says that "it has to be ac-expected to encourage investors not knowledged therefore that a num-The new factory will occupy expected to encourage invest to cash in their certificates.

National Savings meets target

By George Graham

NATIONAL SAVINGS. Britain's state saving organisation, has met the target set for it by the British Government by contributing a total of £3.1bn to the funding of the UK public sector borrowing requirement in the financial year 1984-85. Healthy receipts from fixed in-terestcertificates and from income

bonds helped National Savings to take in £535m from investors in March, while withdrawals totalled £415m. With accrued interest adding £170m, the net contribution to funding in March reached £290m, above average for the year.

The target of 53bn remains the same this financial year, but the proportion supplied by interest ac-cruing on existing deposits is grow-ing and is likely to exceed two thirds this year.

The funds administered by National Savings grew to £29.8bn by the end of March, 12 per cent more than a year before, and interest payments are running at about £170m a month.

In addition, National Savings will benefit this financial year from the introduction of composite rate tax on bank accounts. CRT, which cannot be reclaimed by the non-taxpayer was previously levied only on building society accounts.

National Savings is now the only organisation which can offer deposits accounts which pay interest gross, and should win non-taxpaying investors such as child-

which pays 8.85 per cent tax free, has done respectably well. Sales have totalled around £320m since its launch in February, better than for the 29th issue though not runaway success of the 28th, on offer in

Although investors cashed in

VOTE RIGGING CHARGES PLAGUE UK'S LARGEST LABOUR GROUP

Union may hold new poll

BY MARK MEREDITH AND DAVID BRINDLE

MR RON TODD, general secretary- come from TGWU branches away Transport and General Workers' Union (TGWU), said last night that he would support a fresh ballot for the leadership of the union if its executive conneil decided on one.

Breaking his silence on the grow-ing crisis within the union over allegations of ballot-rigging at the time of his election last year, Mr Todd said he would back a fresh vote because the general secretary re-quired the full confidence of the

His comments came amid reports of further claims of irregularities
surrounding the leadership ballot.
These claims are believed to have

He insisted that these were matters for the union's own machinery to investigate.

pressure against the policy from

some unions and growing evidence

The TUC's key employment poli-

cy committee is expected to endorse

on Wednesday at a special meeting on the issue a confidential policy document prepared by TUC offi-cials which proposes leaving un-changed the TUC's position on the

Even though the private paper says that the conclusion "should not

be taken to denote any complacen-

cy about the operation of TUC poli-cy in relation to the current law," it

has been reached despite its own

relating to the law in industrial dis-

nutes. Those are serious enough to

warrant the TUC's issuing fresh ad-

vice to affiliated unions on key

In particular, the document rec-

ment's labour legislation - and es-

visions of the 1984 Trade Union Act

For the first time, the document

ber of unions are taking the view

- is "the area of the law which is

ognises that injunctions obtained

by employers under the Govern-

pecially the pre-strike balloting pro-

aspects of the law.

causing most difficulty.

of contrary practice at local level.

labour law opposition

TRADE UNION leaders will be that it is necessary or even desir

BY PHILIP BASSETT, LABOUR CORRESPONDENT

blanket opposition to the Govern-ment's labour laws – despite strong

elect of Britain's largest union, the from Northern Ireland and the view, any serious grievances about Bristol area, where the issue first

> A special meeting of the 40-strong general executive council of the understand it, quite frankly. union is likely to be called within the next fortnight to deal with what Mr Moss Evans, the retiring general secretary, has called the most serious crisis in the union for over Mr Todd, speaking in Inverness

where he is attending the Scottish TUC declined to comment on specific claims of voting irregularities.

The document, the result of a sur-

vey of unions stretching back to last

October and representing 7.2m members, says a "firm but flexible" approach by unions to the law is the

The only alternatives to that

strategy, according to the docu-

ment, are full compliance with the

law, which would require unions to alter their rules and constitutions

wholesale, or a "pre-determined pol-icy of unconditional defiance of the

law, a course of action which could

lead unions to fight a series of bat-

tles on the worst possible grounds and so place their resources at the

mercy of employers and individu-

The TUC says that "either of

these alternative courses of action

would not be supported by many af-

filiated unions," and so it says that

there is a "prime need" for unions

to tackle problems with the law on

Left-wing unions are likely to re-

gard that advice as not firm

a case by case basis.

correct one to take.

However, he did say that, in his the conduct of last June's election would have surfaced before now. "Eleven months later, I just don't

In spite of the growing question mark over the ballot procedures. complainants have yet to produce concrete evidence of widesprea manipulation of the voting - the evidence which Mr Evans says he must have if any action is to be tak-

Associates of Mr George Wright the runner-up to Mr Todd in the ballot, say he will produce such evidence when he meets Mr Evans on

Unions urged to uphold **Euro-fighter**

By Michael Donne,

urged this week to maintain the able for them to re-shape their prac-URGENT DECISIONS by the Gov-Frades Union Congress's policy of tices to comply with the law regardernment on major future military aerospace programmes, such as the European Fighter Aircraft (EFA) That admission is the furthest and the new military transport hel the paper goes towards any ac-knowledgement of a growing gap between unions' practices and copter, are needed to save thousands of aerospace jobs, according to Tass, the white-collar section of theory in this increasingly important area of trade union operations.

> aerospace organiser for Tass, says that both Westland, the helicopter manufacturer, and British Aerospace "are under threat from government delays in arriving at deci-

Tass believes that if a full five-nation consortium with France, West Germany, Italy and Spain on the European Fighter Aircraft cannot be achieved because of French intransigence on such matters as work-sharing and design leader-ship, the UK should opt for a small-

iation Authority. The airline plans to start on No vember 1, using Boeing 737 aircraft.

Jobs 'hang on aircraft deal'

Aerospace Correspondent

INTERNATIONALE A LUXEM-BOURG.

2 BOULEVARD ROYAL LUXEM-BOURG.

Payment in sterling will be made at the rate of cachange ruling one day after presentation.

Payment in sterling will be made at the rate of cachange ruling one day after presentation.

Payment in sterling will be made at the rate of cachange ruling one day after presentation.

Payment will be a property of the shares represented by their shares and the office of MILL SAMUEL A CO.

LINE START AND THE SAMUEL A CO.

LINE WORK.

NY 10015.

SOCIETE GENERALE.

29 BOULEVARD HAUSSMANN,

75 PARIS 9.

THE FULL SAMUEL LIMITED,

IMMERIMANISTRASSE S.

AREDISTANK NA.

LUXEMBOURG BOYAL

LUXEMBOURG PAYMENT WILL BE THE SAMUELY AND THE FULL SAMUELY AND THE Amalgamated Union of Engineering Workers.

Mr Chris Darke, the national

sions vital to their future.

er multi-national partnership.

This could be built around the

UK, West Germany, Italy and Spain, as a four-nation venture, or round the UK, West Germany and Italy as a three-nation venture. or any other combination of nations without the French.

 Air Europe, the UK independent airline, has been awarded rights to fly scheduled services between Gatwick and Gibraltar, by the Civil AvCompany Notices



Floating Rate Notes 1989 NOTICE IS HEREBY GIVEN that a drawing of Notes due for redemption on 30th May 1985 will take place on 25th April 1985.

The prefix and note numbers drawn will be published at a subsequent date. Barclavs Bank PLC, 54 Lombard Street, London EC3P 3AH.
Fiscal Agent.

CANON INC.

to the 5% Tax Relief pursuant to the Tax Convention between Japan and the country concerned.

Share EDR/BDR holders resident in the Republic of Korea will receive payment under deduction of Withholding Tax at the reduced rate of 12% and residents of Zambia without any deduction of sect that the above mentioned concessions relating to Japanese Withholding Tax apply only to coupons presented for payment within 8 months of the record date. Thereafter tax will be deducted at the full rate of 20% and it will be the responsibility of the owner to claim from the Japanese Tax Authorities any refund to which he is entitled.

United Kingdom income Tax at the appropriate rate will be deducted from the proceeds unless the Compons are accompanied by a United Kingdom Affair of the residence.

SOCIETE INTERCOMMUNALE BELGE DE GAZ ET D'ELECTRICITE

The Board of Directors has decided on 29th March 1965, to probose to the problem of the problem a divisions, not of Belgias with holding tax of 20°s, offecompte mobilier of BEF 186 23 to the 3.008.876 shares with taxal advan-tages—AFV—BEF 177.06 for the thanklal year 1983; a stillend, net of Sciglan with-holding tax of 20° (precombta mobiler) of 8E° 186 23 to the \$ 221.876 shares with high advan-tages—AFV2—entitled to dividend right as from January 18. 1984.

EBCO INTERNATIONAL B.V. ted with hmited in The Netherlands)

Company with a fully-paid share capital of 15.000 DFI Registered Other J.J. Vootlastreat 52: 1071 J T AMSTERDAM. The Netherlands. Commercial Register: File No. 171.529

Commercial Register: File No. 171,529
The Ordinary General Meeting of holders of international notes 171,629
The Ordinary General Meeting of holders of international notes 171,620
BY, of ext 1,000 held on April 1, 1795, has appointed:

As permanent representatives:

As Francis PAGES,

General PAGES,

FOR THIERE,

General Meeting of State of St

The Managing Boan

An exchange offer for the above Notes, which may be accepted by Notes, which may be accepted by Notes offer for the above notes of the state of the Issued by BANQUE NATIONALE DE PARIS as Fiscal Agent 15th April, 1985

Clubs

EVE has outlived the others because of a policy of fair play and value for money supper from 10-3.0 am. Disco and too musicians, glamorous hostestes, outline flooranows, 189 Repent St. 01-734 0557.

ny Avis cars are laster. RENT-A-CAR 0-50 km/h very slowly. と できて 一人 大学 OPEL ASCONA SALOCNI $0-50 \, \text{km/h}$ very quickly.

We hope you'll never see a long queue at an Avis rental desk. Not that we don't like being popular. We do.

Which is why we've introduced ways of getting you into your car faster than anyone else.

Our Avis Express Card for instance. All those tedious questions you're usually asked are encoded on a magnetic strip.

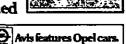
When we run it through one of our computer terminals your rental agreement is printed automatically.

But it's not just our speed that's made us the largest rental company throughout Europe, Africa and the Middle East. (Around the world we're represented in 126 countries and more than 1100 airports.)

We may have the only direct world-

wide computer link in car rental.

But we also owe a lot to those three old-fashioned words.



We try harder.

Ian Hamilton Fazey on the findings of a survey of small companies



We come from both world wars. We come from Kores, Kenys, Malaya, Aden, Cyprus, Ulster and from the Falklands. Now, disabled, we must look to you for help. Please help by helping our Association. BLESMA looks after the imbless from all the Services. It helps to overcome the shock of losing arms, or legs or an eye. And, for the severely handicapped, it provides Residential Homes where the services are where the services are where the services are where the services are the services the serv

provices responsible from a where they can live in peace and dignity.

Help the disabled by fielding ELESMA. We promise you that not one penny of your donation will be wasted.



BUREAUCRATIC "red tape" may have cost Britain about 1.26m jobs many of them new ones - in the five to a survey of the small-business

cutting red tape. It will be studied by Lord Young's enterprise unit. The report does not quantify the for doing so are tucked away in an

years to the end of 1984 according about 714,000 jobs because of bureaucracy. The figures are bound to sector carried out for the Government's report Burdens on Business. ment, prompting the question of The 71-page report, published as parliament rose for the Easter reto tackle the issues of over-regulation and administrative burdens on

The survey was carried out by Research Associates, of Stone, in effect of red tape on job losses or Staffordshire, and covered a repre-job creation, but some of the data sentative sample of businesses employing between one and 200 peo-

(VAT), employment protection, statutory sick pay, pay-as-you-earn (PAYE) income tax, health and safety, national insurance and com-

The final question was what effect the Government's requirements in those areas had had on jobs. A total of 26 per cent of the businesses reported an average of

pany law.

Even the most optimistic interpretation of the data suggests a net loss, in the five years studied, of about 714,000 jobs because of busuch as those on value-added tax of British business, which the report omits to do, produces some startling ligures.

For example, the Customs and Excise annual report for 1983 shows that there were 925,000 businesses registered for VAT with an annual turnover between £20,000 and £1m - that is, likely to be employing between one and 200 people.

If 26 per cent of them each lost or 6.5 jobs each lost or not created as a failed to take on 6.5 employees beresult of regulations. By contrast, 8 cause of red tape, it comes to 1.56m per cent claimed that coping with jobs. Against that must be set the 8

Assessing the burden of red tape on business

Lord Young is considering several options to reduce red tape. Those include simplifying the means of calculating PAYE and national insurance contributions, raising the

present VAT-registration threshold from £19,500 a year turnover to take more small businesses out of VAT, making sick pay easier to administer, reducing planning controls, and simplifying company law, reasonable because it is more than building und fire regulations. health and safety requirements and

BRITISH LIMBLESS

.ESMA

All the securities having been sold, this advertisement appears as a matter of record only.

NATIONAL PATENT DEVELOPMENT CORPORATION

New York, N.Y., U.S.A.

Swiss Francs 60 000 000.-

6% Convertible Bonds of 1985 due 1995

BANQUE GUTZWILLER, KURZ, BUNGENER S.A.
NIPPON KANGYO KAKUMARU (SUISSE) S.A.
SAMUEL MONTAGU (SUISSE) S.A.
J. HENRY SCHRODER BANK AG

BANKERS TRUST AG BANK OF LANGNAU BANQUE CIAL (SUISSE) — Crédit Industrial d'Alsace et de l BANQUE SCANDINAVE EN SUISSE ice et de Lorraine S.A. -CITICORP BANK (SWITZERLAND)

BANCA UNIONE DI CREDITO BANK HEUSSER & CIE AG BANK KÜNZLER AG BANGUE MOOSUEZ — Swiss Branches — BARCLAYS BANK (SUISSE) S.A. CONTINENTAL ILLINOIS BANK (SWITZERLAND) DAHCHI KANGYO BANK (SCHWEIZ) AG COMPAGNIE DE BANQUE ET D'INVESTISSEMENTS, CRI THE INDUSTRIAL BANK OF JAPAN (SCHWEIZ) AG INTERALLIANZ BANK ZÜRICH AG LLOYDS BANK INTERNATIONAL LIMITED LTCB (SCHWEIZ) AG

E GUTZWELER & CE HOTTINGER & CE METSUS FINANZ (SCHWEIZ) AG NEW JAPAN SECURITIES (SCHWEIZ) AG RÜEGG BANK LITD SANWA FINANZ (SCHWEIZ) AG SUMITOMO TRUST FINANCE (SWITZERLAND) LITD

The perils of reforming child benefits

efit; having it taxed; having it rolled up into the family income support benefit; or having it replaced with a

tax allowance.
All these ideas have fallen by the wayside which does not yet mean that child benefit in its present form is secure, but it certainly looks safer than at any point since Mr Norman Fowler, Social Services Secretary, set up his benefit re-

views 12 months ago. A Cabinet committee is still arguing over how far the present myriad of inconsistent and often contradictory benefits should be streamlined and/or cut. But politics have largely ruled out radical reform of child benefit so far, the potential wrath of Tory backbenchers stirred up by middle-class constituents being more than the Prime Minister, in particular, was prepared to contem-

Child benefit is a universal benefit which means it is paid automatically for every child irrespective of the financial circumstances of the child's family. It is paid to the moth-

equalities between men and wom-

Child benefit has a virtual 100 per

cent take-up rate; everybody cashes in their vouchers at the Post Office, the poor using the money as one of killed off.

all helped this idea for change to be cent to begin with. Robin Pauley reports on the problems facing the Government as it attempts to streamline the system for

paying allowances affecting 12m children.

Even if the most harsh assump-

tion is made - that all the jobs would been in the 521,000 compa-

nies turning over between £50,000

and film - the figures are still

880,000 jobs lost or not created

against 166,000 gained, a net loss of

That assumption, however, is un-

likely that many of the jobs con-

cerned would have been in smaller

man would be taxed. However, tax-

the most crucial props to the family taxation system has also been carefully considered, both by taxing it budget and the rich using it as pin money. In 1985-86 it will be paid for and by replacing it with a child tax 12.2m children at a cost of £4.44bn, the largest of the individual nonallowance. The latter would mark a contributory benefits - although when short-term and long-term supplementary benefit payments are added together they come to

more at £5.7bn. Its enormous cost, coupled with the belief that many better-off families no longer need an automatic state payment towards the cost of bringing up a family, have caused the Government to look hard for

ways of reform. A strongly favoured option was to abolish it altogether and then restructure the Family Income Supplement (FIS) to give more cash where needed for children.

This would have meant that a large portion of the £4.4bn could have been saved - a key Treasury requirement in any reform being that between £2bn and £4bn mus be cut from the £40bn social secur ity budget – and poor families could have been given more cash because the FIS is means-tested. The pres ent blanket payment would have been replaced with directly targetted cash.

At present FIS is paid if gross family income is below £90 a week for a one-child family and this threshold rises by £10 per week per child. The maximum of FIS which a one-child family can quality for is £23 a week and this maximum in-

One of the arguments against this is that the me fits have a poor take-up rate and proved through the in child benefit, nobody pretends that have 100 per cent take-up. A poss

Many poor families already fal into the poverty trap under which they cannot improve their standard of living, even with quite substar efit withdrawals and the incidence of income tax and National Insur

IN RECENT weeks and months the parents of about 12m-children in Britain have been in danger of either losing the £8.85 a week child benefit having it rolled employed the contributions wipe out the lissuage of all rises.

The likelihood of reinforcing or ceiving child benefit pay tax and exacerbating the poverty trap coupling it have the financial including a contribution of reinforcing or ceiving child benefit would cut £2 a partial equalities between week off the benefit, including a led with the increase in poverty in week off the benefit, incuding a some families and what the Child large number of low-income families. One way out of that would be spribed as the same times at the same times. scribed as the "rough justice" of FIS to gross-up child benefit by 30 per

> But that all leaves the Government with the same old problem: cash payments for children are about the most effective way of tackling poverty, blanket payments are so expensive as to make large increases in these payments impos-Integrating child benefit into the sible. Ways of directing the money where it is needed so larger amounts can be given have foun-

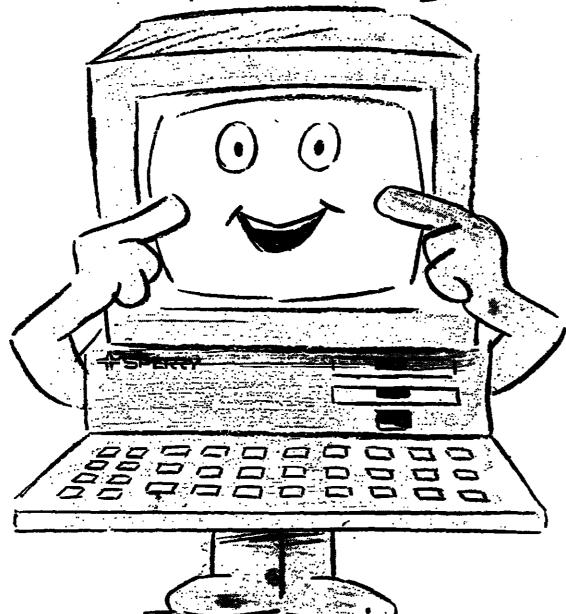
return to the pre-child benefit sys-tem when men had child tax allow-be to pay benefit in a two-tier rate, the second additional portion going
Straightforward taxing of the only to poorer families. But this is present child benefit was also con-sidered. This suffers the reverse ar-form and the administrative comgument - the benefit would be paid plexities may not be worth the efto the woman but in most cases the

ing benefit would broaden the tax So the Prime Minister, backbase and make the tax system fair-benchers and some lobby groups er for families on low incomes. If may have jointly succeeded in enthe £4.4bn were kept as the 1985-86 suring that whatever happens to cost, the money collected by taxing child benefit it will be paid for all child benefit could be used to increase it, making it even more ad- area of reform offering the largest vantageous for the poor.

However, taxing child benefit of whom live in families, may have turns out to be about the same as been missed.

In snarper

GREAT PACIFIC CAPITAL S.A.



See me outshine the competition with my better graphics (and my sharper wit). I'm very adjustable and more readable. So, for the complete picture, and even greater detail, just call me or fill in the coupon.

see me

The Sperry PC What the Personal Computer should have been in the first place.

SPERRY LIMITED, INFORMATION SYSTEMS SPERRY CENTRE, STONEBRIDGE PARK, LOW Please send me details of the Sperry PC.	GROUP DEPT. DE2 NDON NW10 8LS 01-961 3616
Name	
Position	
Company	
Address	
Postcode	
Telephone	215ELSSA
© 1994 Sperry Ltd. Sperry PC is a trade hark of the Sperry Corporation. Sperry Ltd. us a sphelding of the Sperry Corporation U.S.A.	·
Signatury or me-obsert A contribution of 2017	FT 15/4 RS

CO-BAN EUROFINANCE B.V.

US \$30,000,000

Guaranteed Floating Rates Notes 1991 Guaranteed on a subordinated basis by

CO-OPERATIVE BANK PUBLIC LIMITED COMPANY

Notice is hereby given pursuant to the Terms and Conditions of the Notes that for the six months from 16th April 1985 to 16th October 1985 the Notes will bear an interest rate of 912 per annum with a coupon amount of US\$239.87

London & Continental Bankers Limited Agent Bank

A EUROMONEY CONFERENCE HOSTED BY THE BANK OF CHINA

Faces the Future

At the Great Hall of the People, Beijing May 6-8, 1985

Sponsored by

Arab Banking Corporation BSC Bank of Tokyo Banque Bruxelles Lambert SA Chemical Bank Commerzbank AG

Credit Suisse Kleinwort, Benson Limited National Westminster Bank Group The Nomura Securities Co., Ltd.



EUROMONEY

The Royal Bank of Canada/Orion Royal Bank Group

Euromoney Publications Ltd, Nestor House, Playhouse Yard, London EC4V 5EX

Union venture into banking returns profit

BY DAVID LASCELLES, BANKING CORRESPONDENT

UNITY TRUST, the trade union financial institution (it is not allowed to call itself a bank yet) has reason to celebrate its first birthday this month. It has confounded sceptics ally to build up a portfolio of leans who doubted that a labour-backed to meet that criterion while at the venture could ever operate commercially, and last Friday it reported a modest but none the less tangible

of the £97,000 start-up costs, which means that the full expense of the launch could be extinguished this year. The biggest single outlay was £41,000 stamp duty, which apparently converted some trade union-

ists to the virtues of tax-cutting.
Mr David Basnett, the secretarygeneral of the General Municipal Boilermakers and Allied Trades Union, who is Unity Trust's president, describes it as "an up and run-

nent, describes it as "an up and rim-ning viable financial institution with clear objectives."

But the easiest part may be over.
Backed by 35 unions representing 70 per cent of UK union membership, Unity got a large support in the shape of over £12m of union deposits which it merely parked in the money markets at a profit - a rela-

tively effortless form of banking. Not that the money comes free -or necessarily easily. Mr Terry Thomas, the executive from Co-op Bank who is helping to get Unity started, says that trade union treasurers have not placed their money as an act of charity: they were getting II per cent for short-term de-posits last week which compared reasonably well with rates available dividend for several years, they

While the trade union movement as a whole has £500m in assets. pointing to scope for further deposit growth, Unity's task is to start find-

Bank of Ireland 131%
Bank of Cyprus 131%
Bank of India 131%
Bank of Scotland 13 %
Banque Belge Ltd. 131%
Barciays Bank 121%
Beneficial Trust Ltd. 14 %
Brit. Bank of Mid. East 131%

■ Brown Shipley 13 % CI. Bank Nederland... 121% Canada Perm'nt Trust 131% Cayzer Ltd. 131% Cedar Holdings 14 %

Duncan Lawrie 1239

E. T. Trust Ltd. 131% Exeter Trust Ltd. 131% First Nat. Fin. Corp... 141% First Nat. Secs. Ltd. ... 14 %

Hambros Bank 131% Heritable & Gen. Trust 13 %

■ Hill Samuel§131%

Bank Hapoalim 13

BCCI
Bank of Ireland

 $V_{\rm eff} \cong \mathcal{F}_{\mathcal{F}}$

ing a real use for its money.

The institution was set up to fi-nance investment in the UK that

same time providing the institution with a commercial return. So far it has made only a handful profit of £92,000 for its first eight months to end-1984.

After tax this covered two thirds of the £97,000 start-up costs, which and disabled in Reading which will be sold at cost (though the UKHA itself will be paying market rates for Unity Trust's finance).

to meet that criterion while at the

Another is a £350,000 loan for a Worcester into a housing, shopping and leisure complex. A smaller loan financed the purchase of four facto-ry units in Cannock to create jobs in a high unemployment area. There are further loan commit-

ments totalling about £3m.

Mr Thomas stresses that Unity's growth will be sober and steady because its parentage makes it parti-cularly vital that it establishes its

"If we're not perceived to be a stable institution, then we've had it." he said.

At least Unity does not lack capi-tal. Its initial share issue last year was hugely oversubscribed by trade union investors: it was looking for £21/2m and got £4m; the surplus had to be channelled into a special class of non-voting stock.

could probably sell their shares at a profit right away, though none

Later this year, Mr Thomas hopes to launch a retail banking service for trade union customers

Roxburghe Guarantee 13 Royal Bank of Scotland 13

United Bank of Kuwait 13 United Mizrahi Bank... 13

Westpac Banking Corp. 13 %
Whiteaway Laidiaw ... 131%
Williams & Glyn's ... 13 %
Wintrust Sees. Ltd. ... 131%
Yorkshire Bank 131%

Royal Trust Co. Canada 121% ■ J. Henry Schroder Wagg 13}%

P. S. Refson

9 Mortgage base rate.

44 See Provincial Trust Ltd.

BASE LENDING RATES

■ Guinness Mahon 131% # 21-day deposits over £1,000 10%%

Decline in bank staff claimed

By Brian Groom, Labour Staff

NEW TECHNOLOGY is now biting into bank staff numbers, the Banking, Insurance and Finance Union (BIFU) claimed yesterday after the release of statistics by the Committee of London Clearing Bankers (CLCB). The union's claim is hotly disputed by bank

The figures show that although the total of part-time staff at Barclays, National Westminster, Midland, Lloyds, Williams and Glyns, and Courts is growing, the number of full-time staff is 3,200 below the 1980 level at 219,100.

This comes amid news of a po-tentially important development at Lloyds Bank, which is consid-ering launching a pilot scheme of self-service banking at four branches in southern England this autumn. It could be later ex-

Using Prestel keyboards and video screens, customers in lob-bies or banking halls would be able to pay bills, transfer money between accounts, cancel standing orders, seek information and order bank services without the need for staff or paper transac-

placed in customers' homes. The English clearing banks have been slow to follow the Bank of nd and the Nottingham Building Society into home banking because of consumer resistance to the cost of installing equipment. But the Lloyds scheme may be a way of familia-

rising customers with the system.
Although back-office staff would be redeployed on marketing services, Mr David Burton, BIFU assistant secretary, said at least 5,000 jobs could be lost if the scheme went nationwide and was developed into home bank-ing. Lloyds said disclosure of the scheme was "a hit scheme was "a hit premature" and no final decisions had been

The scheme may be launched at Salisbury, Shaftesbury, and two Southampton branches, Bit-terne and High Street. The union is seeking assurances that no job losses would result.

The CLCB figures show that total staffs in the English clearers grew by 300 to 239,300 in the year to last December. But although part-time women employees were 600 up at 20,200, full-time staff fell by 300.

Mr Terry Molloy, BIFU's Dep-uty General Secretary, said new that the stagnation of staff

year's stagnation, the average rate of staff growth has clearly slowed from more than 3 per cent a year in the 1970s to 1-2 per pect of a return to higher levels. Unions fear falling numbers and

BIFU is not opposed to new technology, but wants to reach agreement giving it a say in how machinery is introduced. Apart from the Co-op, most banks have refused to sign these technology

GEC shake-up reveals failure to change strategies quickly

THE REORGANISATION of GEC's power engineering businesses last week shows that the group's much admired management rigour has reorganisation in a leading not always been applied uniformly.

UK company

The group's power engineering division is made up mainly of mature manufacturing companies that have had a hard time in the past customers. Last December, it anfive years. Some have done well nounced a joint venture with Brit-despite the difficult conditions, but ish Aerospace to develop genera-others have been remarkably slow lised software for flexible manufacto adapt their strategies to the cold-er trading climate that is expected The reorgani The reorganisation should pro-

Just to list the division's main product lines gives an idea of the difficulties. They include huge steam turbine generators for the product lines gives an idea of the product lines gives an steam turbine generators for power stations, transformers and switch-gear for distributing electricity from power stations to users, gas turbines for driving industrial equipment and remote power stawhat is a fast evolving field.

tions - mainly on oil platforms -and diesel engines for locomotives and naval and fishing boats. The only real growth business in the division is the one called electrical projects. From a base in supplying traditional process controls to industry, it has been building up a strong position in the new automated manufacturing technologies. After some initial caution, GEC appears quite well placed in this sector, both in terms of products such as programmable logic controllers (PLCs), robots and automated guided vehicles, and systems and

project management expertise. It is one of the leading suppliers of PLCs in the UK and has recently won a first order in the North American motor industry, the stronghold of the U.S. electronics group, Allen-Bradley. The division is also managing the computer-integrated manufacturing aspect of

Ian Rodger examines the reasons for a divisional

drives. Mr Clem Jansen, head of electrical projects, said that his group was the largest customer for these machines, and the integration should improve the manufacturers' response to new market trends in

Electrical projects are now fairly large, with turnover of about £350m a year, but still accounts for less than a quarter of the turnover in the reorganised power engineering division. Among the other sections, steam turbine generators is the largest with turnover of about \$500m while gas turbines and diesels has roughly £350m in sales and the electrical distribution section some £320m

Two of these mature businesses, steam turbines and small gas tur-bines, have coped very well with the challenges of the past few years, and it is no surprise that Mr Bob Davidson and Mr Kelvin Brey, the managing directors of these two, have been given increased respon-

Both recognised at an early stage that the key to survival in mature products was to increase world

that was to make better products at lower cost than the competition.

The steam turbine section has spent well over C60m in the past decade on new production machinery, including high-technology laser cutting machines and sophisticated machining centres. The resulting cost savings helped it win big and profitable overseas contracts even in the early 1980s when the high value of sterling was stifling most UK exporters.

Similarly, Ruston Gas Turbines at Lincoln in eastern England has steadily improved its world market position, partly by investing about £40m in the last decade on new products and processes. In 1983, it won the MacRobert award for commercially successful engineering.

GEC's other gas turbine company, GEC Gas Turbines, was not as forward-looking as Ruston and lost ground to its competitors in the ear-1980s. It was taken under Ruston's wing in 1983

Mr Bray is taking over responsi-bility for GECs five diesel engine manufacturing companies, and a similar combination of investment and rationalisation can probably be expected. Four of the five are in the UK - Paxman at Colchester, Essex, Dorman at Stafford, in the Midlands. Ruston on Merseyside and Kelvin in Glasgow. The other, Bau-

douin, is in France. All are small, specialised produc ers, together making fewer than 1,500 engines a year. By contrast, Perkins, the Massey-Ferguson sub-sidiary, produces more than that at its Peterborough plant in a week.

Paxman, which specialises in high-performance engines for lo comotives and fast patrol boats, is in the best shape, with a full order market share. The only way to do book and up-to-date technology

When alcohol begins to cost your spouse, friend, or Our free, confidential consultation can provide more information about employee more than money private hospital treatment for the illness of alcoholism ...we can help. We are private, medicallysupervised clinics and since 1977 we have helped Ask your G.P. or ring today. out the emotional costs of drink or drug-related problems. We can assist, even if the alcoholic in your Dial 100 and ask for Freefone Manor Clinics life has not yet asked for help.

Subscribers who are medically insured may claim benefits within the terms of their policies.



In the Far East, it's the next best thing to your private jet.

When you're rushing around the Far East on business, it's good to know there's an airline with a timetable and a network that can reduce the stress of travel to a minimum.

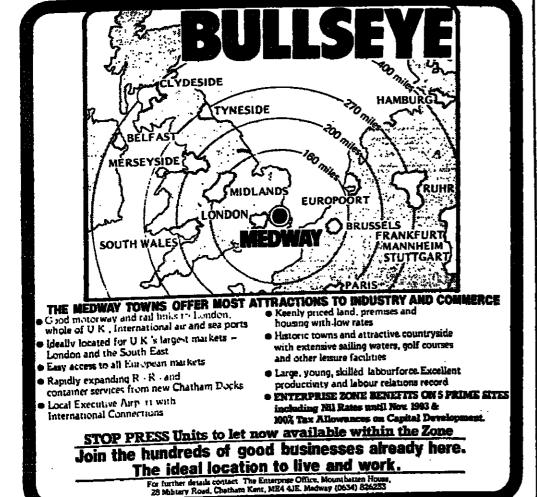
So while we can't quite promise the flexibility of having your own aircraft, Cathay Pacific can promise the most convenient schedules in the Far East and more flights to, through and from

Hong Kong than any other airline.

We can also promise a relaxing journey and, what's even more important, a relaxed arrival.

anivershape-

CATHAY PACIFICATION The Swire Group





The versatile new Multi-User system from Pegasus Business Software ends that bruising battle for computer access. Because Multi-User's interactive power comfortably keeps pace with the business accounting needs of many

departments at once. With Multi-User, all the key areas in the company can now maintain and update their own section of the company's business accounts whenever they want to ... recording key transactions as they happen ... generating individual forms and reports the

moment they are needed. Entries and updates, file-checks and reporting requests, the new Multi-User system takes care of them all. No fuss. No fights. Multi-User simply politely handles your accounting request . . . with a speed, accuracy and economy most sizes of business can benefit

Multi-User works with leading-make micros to add a major new dimension to the features that have made best-selling Pegasus Software the friendliest, most accommodating accounting



Peganus Software Ltd., FREEPOST, Brikat House, 35/41 Montagn Street, Kettering, Northann NN16 826 Telephone: 0536 522822. Telem 341297 BRIKAT G. Th: Pegasus Software Ltd., FREEPOST, Britax House, 35/41 Montagu Street, Kettering, Northants NNI6 8XG Tel: 0536 522822. Tejex: 341297 BRIEAT G. I would like to see Pegasus Multi-User in action. Please send me further information and tell me where I can see the system in operation. Our present microcomputer is We don't own a computer []
No time to fill in the coup

Major business benefits with every module.

★ Invoices and pays in any currency you choose.

★ Flips through files to pinpoint information in seconds.
 ★ Help whenever you need — right on the screen as you work.
 ★ Brings new breadth in recording power, new depth in analysis.

★ Speeds the paperwork with up to three separate printers.

Sales Ledger, Purchase Ledger, Nominal Ledger

★ Generates precisely the reports you require.

See the new Multi-User in action now

at your local Pegasus Dealer. Simply

clip the FREEPOST coupon below

Share the experience!

to find out more.

system in the business. With a whole battery of benefits to make accounting

faster, simpler and up-to-the minute in

A profitable new step to peaceful coexistence

Parliament this week

Commons: Second Reading of the Surrogacy Arrangements Bill, followed by resaming stages of the Education (Corporal Punishment) Bill and proceedings on the Reserve Forces (Safeguard of Employment) Bill (Lords), a consolidation measure Lords: Second Reading of the Local Government Bill.

Select Committees: Environment: Subject: Radioactive Weste, Witness: Radioactive Weste, Witness: Radioactive Weste, Witness: Radioactive Weste, Witness: Traddes Union Congress (4.3.0 pm), Confederation of British Industry (Room 15, aproximately 5.30 pm).

TOMORROW

Commons: Second Reading of the Prosecution of Offeness Bill (Lords), followed by motions on the Police (Anonymous, Repetitious etc, Complaints) Regulations, the Police (Complaints) (Mandstory Referrals etc.) Regulations, and on the Police (Complaints) (Informal Resolution) Regulations;

plaints) (Informal Resolution) regula-tions.

Lords: Report stags of the Child Abduction and Custody Bill (Lords), Third Reading of Insolvency Bill (Lords), Report stage of Trustee Sev-ings Banks Bill, and resumption of committee stage of Representation of the People Bill. Select Committees: Trade and Industry: Subject: Trade with China, Witness: Lord Young (Room 15, 10.30 am), Education, Science and Arts: Subject: Achievement in Primary Schools, Witness: The Library Associa-

am), Education, Science and Arts: Subject: Achievement in Primary Schools, Witness: The Library Association (Room 15, 10.48 am), Lords Select Committee on the European Communities, Sub-committee A: Subject: the Commission's proposels for a common market in mortgage credit, Witness: Bank of England (4.00 pm).

WEDNESDAY

wealth and opportunities for employment.
Select Committees: Trade and Induatry: Subject: Trade with China, Wanes: Department of Trade and Industry (Room 15, 12.30 am), Weish Affaira, Subject: Tourism in Wales. Witness: Weish Office (Room 18, 10.30 am), Employment, Subject: The training of young people for employment, Lords: Select Committee on the European Communities, Sub-committee D. Subject: The Common Market in Wine, Witness: Sr Jesus Mirands de Lerra. Agricultural Counsellor, Spanish Embassy, Sub-committee E. Subject: EC External Competence, Witness: Dr H. J. Glassner, directories: Or H. J. Glassner, directories: Order H

THURSDAY

Commons: Remaining stages of the Social Security Bill.

Lords: Committee stage of the Weter (Furdation) Bill.

Select Committee: Agriculture. Subject: The future role of ADAS and lower cost farming. Witness: ADAS (Room 16, 10.45 am).

Lords: Select Committee on Science and Technology. Sub-committee II (Marine). Witness: Department of Trade and Industry (3.00 pm). THURSDAY

REPUBLIQUE ALGERIENNE DEMOCRATIQUE ET POPULAIRE

MENISTERE DE L'ENERGIE ET DES INDUSTRIES PETROCHIMIQUES

(Ministry for Energy and Petrochemical Industries)

ENTREPRISE NATIONALE DES TRAVAUX AUX PUITS

(National Oil Explohetion Company)

NOTICE OF NATIONAL CALL FOR TENDERS

NUMBER 1144/1J/MEC/

The National Oil Exploration. Company is launching a National and International open Call for

Tenderers interested in this Call for Tenders may obtain the specifications for the sum of

Direction des Approvisionnements [Supplies Division]-with effect from the date on which

Offers, of which five (05) copies should be prepared, must be sent in a double-sealed envelope,

by registered mail, to the Secritariat de la Direction Approvisionnements (Secretariat Supplies

The outer envelope should not bear any mark that might identify the tenderer or any heading.

and read "Appel à la concurrence international numéro 1144/1]-confidential-A ne pas ouvrir."

Tenders must be received 45 days at the latest from the date on which this notice is published.

[International Open Call for Tenders number 1144/1]—confidential—Do not open].

Selection will be made within 180 days of the closing date of this Call for Tender.

BUILDING CONTRACTS

£6m batch for Wimpey

GROUP has been city contracts totalling value WIMTER GROUP has been awarded contracts totalling nearly form. Balfour Beatty has placed a contract worth roughly placed a contract worth roughly 22m for surfacing part of the Edinburgh by-pass. Woodspring District Council has placed an £840,000 contract for improvements to 74 houses in Westonsuper-Mare. A 260m-litre capacontract.

Laing builds superhangar

JOHN LAING has won a £1.3m contract to build a super-hangar at the Imperial War Museum at Duxford, Cambridge. Work begins on April 29, for completion in early December. Measuring 22 metres in height, the hangar will be able to store the hangar will be able to store up to six large aircraft at a time, holding part of a collection of civil and military aircraft, including one of the first Concordes ever built. The work is for the Property Services Agency. A £3m contract for an office and warehouse development is being built at Manchester for Kitchens Direct. Covering 10 acres at Old Trafford, the work is for comple-Trafford, the work is for comp-tion by October.

TAYLOR WOODROW CON-STRUCTION has started two contracts, worth a total of £1m, to build a mini-industrial to build a minimusurated development, and a warehouse. The company is building 20 industrial units in Ashworth Road, Mannington, Swindon, industrial units in Ashworth Road, Mannington, Swindon, under a £800,000 design and construct contract for Taylor Woodrow Property Co which is developing the site in association with Thamesdown Borough Council. The project is due for completion in September 1985. The six double-storey, and 14 single-storey units will be contained in two horseshoe-shaped buildings, providing 27,000 sq ft of space, with a central courtyard as a service area. The other as a service area. The other order, valued at £230,000 has been placed by Taylor Woodrow Developments for a warehouse on the Nursling Industrial Estate, Southampton. The build-ing is scheduled for completion in May, and will be occupied by Security Express.

CLUGSTON CONSTRUCTION has received orders valued at more than £2.4m. The largest awards include a high bay warehouse development at Pyewipe, Grimsby, for Ciba Geigy Chemicals and a merchant bar mill at Appleby Frodingham Works,

valued at £918,000 in Ponthir, Gwent, is for the Welsh Water Authority. Refurbishing and remedial works at British Telecommunications' base at Darlington Road, Northallerton, are to be undertaken under a £2.2m

Scunthorpe, for United Mer-chant Bar. These contracts are valued at £900,000 and £460,000 respectively. Other civil engineering contracts include flood alleviation works at Rothwell, Leeds, for the Yorkshire Water Authority, an inner urban area general improvement scheme at Gipton, Leeds, for West York-shire County Council, and civil engineering work on a hot gas generator at King's Lynn for British Sugar. Further building

involves construction of 3.2 km of single carriageway varying in width from 7.3 to 10 metres and a further 0.8 km of side roads together with a large new roundabout to link up with the A359 to Shepton Mallett and the A361 to Frome. Included are two concrete underbridges to carry the road across Nuney brook and the Trudoxhill access road. This is a 78-week contract.

A fil-4m contract for stone repairs and restoration of the river terrace elevations of the Palace of Westminster has been awarded to JOHN MOWLEM & CO by the Property Services Agency of the Department of the Environment. The contract is for work on the whole of the river frontage of the Palace, including elevations to the Lord Chancellor's Tower. It will comprise extensive stone cleaning, Chancellor's Tower. It will comprise extensive stone cleaning, masonry work, new carvings to reproduce original Victorian work which has fractured or worn away, gilding to metalwork on pinnicles and repairs to Victorian metal windows. Use of the terrace for members of both Houses is being maintained throughout the contract, which is due for completion in completion



£5m tunnelling work for Rees Hough

REES HOUGH has been awarded tunnelling contracts worth 15m.
These include a 12.5m contract
for the installation of 4.3 km of generator at Ring's Lyan for British Sugar. Further building for the installation of 4.3 km of tunnels as part of the second stage of the Margate relief stage of the Marg con-on-sea, is being installed in a one-pass proprietary liming in chalk. Rees Hough is also carry-ing out open cut sewer instal-lations and headings as part of lations and headings as part of the contract. Other work includes the £500,000 reconstruction of the Hampton foul sewer in Sunbury Road, Kingston, mainly by open cut methods although again part of the works are being carried out in heading.

> Companies in LONDON AND NORTHERN GROUP have been awarded contracts worth £1.5m. Largest in the Midlands, will refurbish 61 homes at Moran Road, Knutton, Newcastle-under-Lyne in a £257,000 contract for the Borough of Newcastle-under-Lyne Council. Lyne Council.

> NORWEST HOLST SCOTLAND has begun work on a £1.2m contract to build an outfall sewer for Strathclyde Regional Council, Department of Sewerage. The contract is in opencut and tunnel between the village of Glenmavis and the town of Airdrie. Part of the contract is in an area of old mine workings, which require consolidating before work can proceed. An existing sewage treatment works will be treatment works will be demolished. Work is due for completion in February 1988.

Contracts and Tenders

REPUBLIQUE ALGERIENNE DEMOGRATIQUE ET POPULAIRE

MINISTERE DE L'ENERGIE ET DES INDUSTRIES CHIMIQUES ET PETROCHIMIQUES (Ministry for Energy and Chemical and Petrochemical Industries)

ENTREPRISE NATIONALE DES TRAVAUX AUX PUITS (National Oil Exploitation Company)

NOTICE OF NATIONAL AND INTERNATIONAL CALL FOR TENDERS

NUMBER 9152AY/DIV

The National Oil Exploitation Company is launching a National and International Call for Tenders for the supply of the following:

-Lot no. I power-driven pump sets

-Lot no. 2 Lighting equipment (posts)

-Lot no. 3 fire fighting equipment

-Lot no. 4 decanting appliances

This call for tenders is intended for Manufacturing Companies only and excludes amaigamations, representatives of companies and any other intermediaries etc. in conformity with the provisions of the Law No. 78-02 of 11 February 1978, with respect to State Monopoly on Foreign Trade. Tenderers interested in this Call for Tenders may obtain the specifications from the following address: Entreprise Nationale des Travaux aux Puits, Direction des Approvisionn [Supplies Division], 16 Route de MEFTAH. Oued Smar, El-Harrach, Alglers, Algeria, with effect from the date on which this notice is published for the sum of 400 Algerian dinars. Offers, of which five (05) copies should be prepared, must be sent in a d .:ble-sealed envelope, by registered mail, to the Secrétariat de la Direction Approvisionnements [Secretariat Supplies

Division L The outer envelope should not bear any mark that might identify the tenderer, or any beading, and should read: "APPEL D'OFFRES NATIONAL ET INTERNATIONAL NUMERO: 9152AY/ DIV-CONFIDENTIAL A NE PAS OUVRIR." [NATIONAL AND INTERNATIONAL CALL FOR TENDERS NUMBER: 9152AY/DIV-CONFIDENTIAL DO NOT OPEN"].

Tenders must be received by 12 noon on Saturday 1 June 1985 at the latest. Selection will be made within 180 days of the closing date of this Call for Tenders.

SYRIAN ARAB REPUBLIC

NOTICE

Damascus Water Supply Authority Invitation for Prequalification Information Engineering Services
New Water Resources Development Project For the City of Damascus

The "Etablissement Public des Eaux de Figeh" (EPEF, Damascus Water Supply Authority, SYRIA) is planning to investigate and evaluate new water resources for the provision of the city of Damascus with adequate supplies of

water until the year 2010.

To this end, EPEF shall engage an International Consulting Firm or Joint-Venture of Firms, specialized in studies of water resources, conveyance, storage, treatment and distribution at the master plan, feasibility and detailed engineering levels levels.

Interested Consulting Firms having an extensive experience

with similar projects, may obtain a copy of the prequalification questionnaire forms by application in writing or telex to: Etablissement Public des Eaux de Figeh Water Resources Office Al-Nassr Street

Damascus — SYRIA Telex: Figdam 411312 SY It is anticipated that the project shall be financed in part by International or Arab Funding Agencies. The terminal date for submission of the completed question-naire forms is 15th May 1985.

President Director General of EPEF Eng. M. Rida MOURTADA

PLYMOUTH POLYTECHNIC

INVITATION TO TENDER Applications are invited from

AN INTEGRATED

NAVIGATION SIMULATOR approved by the UK Department of Transport (DTp) complete with hydrographic survey workstations and a bridge visual system acceptable for DTp approved Bridge Preparatory Courses. Companies wishing to apply should

write, before 25th April 1965 to The Clark to the Governors Drake Circu Plymouth PL4 8AA Devon. England

WORLDWIDE FREIGHT AND FORWARDING SERVICES

Reference is made to Kenana Sugar Company's nobe of tender invitation for Worldwide Freight and forwarding Service published in the local newspapers and the tenders are requested to note the following change:

CLOSING DATE

Closing data for submission of CLOSING DATE
Closing date for submission of
banders is hereby extended until
12.00 neon (Sudan local time)
24th April 1965
All other requirements of the tende
will remain the same

FRAD PHYSICALLY HANDICAPPED AND ABLE BODIED A UNIQUE OCCASION at The Royal Institution of Great Britain 21 Albemarle Street, London W1

Tenders for the supply of the following:

Entreprise Nationale des Travaux aux Pults

this notice is published.

Division] at the above address.

Lot no. I spare parts for engine DEUTZ-B.A. 6M/816

400.00 Algerian dinars from the following address:-

Lot no. 2 spare parts for engine DEUTZ-B.A. 12M/816

16 ROUTE DE MEFTAH, OUED-SMAR, EL HARRACH, ALGIERS, ALGERIA

MONDAY 13 MAY 1985 5.30 p.m.-7.30 p.m.

SIR ADRIAN SWIRE (Deputy Chairman, John Swire & Sons mited) will deliver the third annual Sir John Keswick Memorial It will focus on Hong Kong and China, and include personal and siness observations as well as slides about the Far East - it is an

opportunity not to be missed.

The event is in sid of PHAB - physically handicapped and able

The event is in an of PHAB - physically handicapped and able bodied - the national charity which creates opportunities for physically handicapped children and adults to share the rich variety of life, in all its sotivities and experiences, on equal terms with able bodied people. Tokets which include a Wine Reception at 5.30 p.m. are £10 each (double ticket £18). Please apply to: Joan Winde, PHAB (Keswick Lecture), Tavistock House North, Tavistock Square, London WCIII 9HX.

Tel: 01-388 1963.

-	
anse	payable co PHAI
ddress	
	el No.

Courses

THE JAPANESE DEAL
The Japanese Language Package
can help you to help yourself
communicate with the Japanese
This language package contains:
Japanese for Beginners — the text
book (C14.50). Japanese for Beginners — the caseotte tapes (224.00).
And an English to Japanese Dictionary (19.00). Total package price
28.00 (Date 12.10). All books are
published by Gakken, Japan's most
famous producer of educational
material. and produced under
licence only by us. This means that
these are the lowest prices available
in this country.
Send no maney. For more
Information please contact:
The Japanese Publication Centre THE JAPANESE DEAL

information please contact: he Japanese Publication Centre 5 Warwick Street, London WIR SEA - Tel: 01-439 8035

Legal Notices

THE COMPANIES ACTS 1948 TO 1975

NOTICE IS HEREBY GIVEN, PURSUAN NOTICE IS HEREBY GIVEN, parsuant to Section 253 of the Companies Act 1948, that a Meeting of the Creditors of the above-named Company will be held at The Connaught Rooma. Great Queen Street, London WCZ on Wednesday, the 24th day of April 1965 at 2.30 o clock in the afternoon, for the purposest mentioned in Sections 234 and 235 of the said Act.

Dated this 1st day of April 1985. M. P N. ATKINS. Director

Notice to Holders of European Depositary Receipts (EDRs) in KOMATSU LTD.

Company Notices

THE ROYAL BANK OF CANADA

US\$100,000,000 111/4% DEPOSIT NOTES DUE 1990

The Royal Bank of Canada (the "Bank") hereby advises that the main branch of the Bank in Toronto, Ontario, Canada has been designated as the branch of account for deposits evidenced by the above referenced Notes.

ORION ROYAL BANK LIMITED

Money Market Cheque Account Jersey Compounded Arm 13.35%

BRASCAN LIMITED The Annual Meeting of Shareholdery of Brascan Limited will be held at the Ballroom, Mezanine Level, Foor Season, Mezanine Level, Foor Season, Mezanine Level, Foor Season, State of the Annual Part of the Annual Cooles of the annual report, soulce of the meeting and proutes are available at the others or:

Sarhas Brothers & Co., Limited,
London OCZN 4An,

PREDICTING CORPORATE COLLAPSE

Credit Analyst in the Determination and Forecasting of Insolvent Companies by Alexander Bathory

Company insolvency is a growing problem today; can it be forecast? Using sample company figures, PREDICTING CORPORATE COLLAPSE identifies different levels of insolvency. It helps grantors of credit and other interested parties to determine the likelihood of insolvency.

The author has devised a formula which gives guidance on how to deal with these problems, and in some cases he suggests how they may be remedied.

THE FORMULA: operates on the minimum statutory accounting data disclosed by private companies * enables you to bypass specialist statistical routines * is quick, easy and retains a high degree of accuracy * assists in the determination of corporate insolvency and general credit analysis.

The advice given in this Financial Times Management Report is applicable to any size of company in any sector.

Published November 1984.

Price (including postage and packing): £65 UK or U.S.\$110 overseas. Please note payment must accompany order. Cheques should be made payable to FT Business Information. Visa, Amex, Access and Diners credit card payments are accepted if accompanied by signature and card expiry date.

Send orders to: The Marketing Dept, Financial Times Business Information, 102 Clerkenwell Road, London ECIM 5SA, Tel: 01-251 9321. Telex: 23700 (Mail order address only). Please allow 28 days

Blueprints for safer chemical plants

BY PETER MARSH

AN UNUSUAL collaboration between chemical companies on both sides of the Atlantic has produced a set of guidelines that should improve the safety of existing chemical plants and reduce design times for new

The interest of chemical companies in the programme may be increased by their wish to avoid accidents similar to the avoid accidents similar to the recent disaster in Bhopal, India. In that case, a malfunction is venting system appears to have been one of the factors contributing to the tragedy.

Channels for the safe venting of gases and liquids are an essential feature of processes to turn out, by chemical reactions, a huge range of products from champagne to cement. The vents release fluids if the pressure inside a reaction vessel exceeds an optimum value.

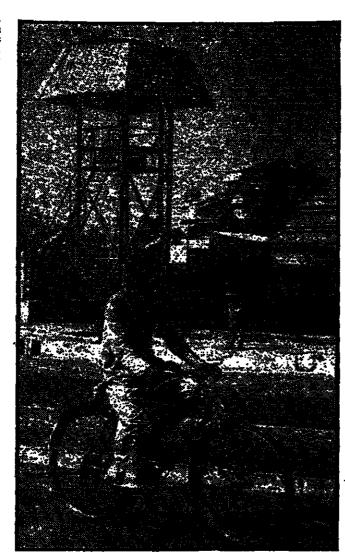
To design the correct shape of vents for "two-phase" flow —one which carries both gases and liquids—is especially difficult. The two types of fluid can interact to give a foam whose properties and behaviour are difficult to predict as anyone difficult to predict, as anyone who has watched a pan of milk boil over will testify.

The vents, typically a few centimetres wide, must be large enough to admit the volumes of liquids and gases that could bubble up from a reaction in an emergency. But it is against the chemical engineer's interests to make the vents too large. This not only adds to the costs of the centing system but may make its venting system but may make its operation difficult-for instance, the large and heavy valves required for wide pipes may be more likely to stick open or shut.

A group of about 30 chemical companies started a co-opera-tive exercise eight years ago to derive design rules for two-phase venting systems.

The \$1.6m programme, called the Design Institute for Emergency Relief Systems and conducted under the auspices of the American Institute of Chemical Engineers, is provid-ing results with which com-panies can both plan new plant and check on the safety of existing factories

Mr Harold Fisher, a Union Carbide engineer who chaired the group in charge of the gramme, says that chemical companies generally have wellestablished design rules for pressure inside the reaction vents through which liquids or gases are passed sensuately



Life returns to a semblance of normality in Bhopal, India, scene of the world's worst industrial disoster last December

But for two-phase vents, the guidelines are less clear cut. Vents that have to cater for both liquids and gases may be required when, for instance, a reaction proceeds at a high

This produces gases at a high rate which may bubble up a vent pipe, propelling liquid through the opening at the same time. Such a bubbling may occur if,

Another type of reaction for which two-phase venting may be required involves highly viscous liquids of the con-sistency of washing-up fluid. Such reactions are more likely to produce foams if they go out

Participants in the study included Dow, Ciba Giegy, Du Pont, Eastman Kodak, Gulf Oil, Mobil, Monsanto, Phillips Petroleum, Shell, Sandoz, Hoffman La indicate the kind of vents that Roche and Conoco, British might be required. Fauske and

Realth and Safety Executive and the Insurance Technical Bureau, a research group funded by major insurance com-panies such as Prudential, Legal and General, Sun Alliance and

Commercial Union

These organisations underwrote the costs of the project and supplied technical data to Fanske and Associates, a company of engineering contractors Chicago, that did much of the project work. Three sets of results followed from the

● A large body of design data that gives designers guidelines on two-phase venting systems. Such information was previously unavailable in a concise form. According to one British engineer who worked on the programme, the guidelines should cut "from days to hours" the time taken to produce the right size and shape of vent for a reaction vessel.

 A computer program intended to prescribe the type of vent for a given chemical mixture. The designer would have to feed into the program details about the type of substances in the reaction, their rate of flow through the vessel and the extremes of conditions such as temperature and pressure that the materials are likely to

have to receive data about the size and shape of the vessel and a description of the role for the intended vent, which would channel fluids either to the atmosphere or (if the materials are poisonous) to a catchment vessel. With the program, the designer would work out whether the products of the reaction are likely to foam and the characteristics of the venting system needed to accommo-

A small piece of laboratory appartus used to test venting equipment. The \$40,000 system includes a 100 millilitre recepincludes a 100 minuscitate which contains the chemitate will be ready for clinical testing of the man. But tests in rats have in man and in m appartus analyses the data to indicate the kind of vents that

DRUG DELIVERY SYSTEMS

Diabetics helped by 'artificial glands'

BY DAVID FISHLOCK

the convenience of particular encapsulating plastic film is groups of patients for whom alginate-poly-liysine (PLL)—current practice can be a alginate, developed at the Conchore.

Diabetes: One system aims to replace the needle for diabetics, for whom daily—and sometimes five-times a day—injections of insulin are a life-saver. It is effectively a miniature pancreas, implanted in the abdomen, where it released insulin as the person requires it by a natural

The "artificial pancreas" Cancer: The problem that consists of a cluster of living, insulin-making cells taken from a healthy animal pancreas.

Cancer: The problem that faced ICI researchers was the difficulty they foresaw in persuading elderly males with The "artificial pancreas" consists of a cluster of Iving, insulin-making cells taken from a healthy animal pancreas. These clusters of some 5,000 cells—so-called inset cells—are sealed in capsules of plastic specifically chosen for its long-term tolerance by living tissues.

The capsule acts like a living, semi-permeable membrane, to trigger insulin production as and when it is wanted.

But the capsule shields the "foreign" cells from the body's immune system and so prevents their rejection. Its permeability permits the in-sulin to leak out in response to the glucose level the cells themselves are sensing, so providing a naturally self-regulating system instead of the self-testing normally practised by a

diabetic. Behind the idea is a new company, Vivotech, set up last year at Needham Heights, Massachusetts, as a joint venture between Connaught Laboratories, the leading Canadian pharma-ceutical company and its main is impregnated with the drug-manufacturer of insulin for the a peptide—which is liberated past 60-odd years, and Damon Biotech specialises in microencapsulation.

According to Dr Alison tech, another two years of chemical to castrate the patient safety testing, using primates, is needed before the technique similar chemically to biode gradable sutres—can be implanted by a horselessing technique implanted by a horselessing technique.

diabetic

BIOTECHNOLOGY lies at the sulin, but too small to admit root of two ingenious new drug the antibodies which would delivery systems, tailored to start an immune reaction. The Ontario, and fashioned by Damon Biotech into micro-

> diameter. The microcapsules are small enough to be passed by a gauge 18 or 19 hypodermic and can provide, in principle, a diabetic with a source of insulin capable of lasting a

> capsules about 0.5 mm in

cancer of the prostate gland to take their new anti-cancer drug Zoladex regularly enough to maintain a constant and opti-mum level of drug in the body. As soon as the drug went into development they began to seek a convenient delivery system appropriate to typical patient.

The treatment calls for con stant levels of a chemical designed to block the synthesis of androgen by the testes; in effect, to switch off the gonads. If androgen is no longer being supplied, this particular tumout usually ceases to grow. The treatment is sometimes called chemical castration."

The scientists at ICI's pharmaceuticals division, Alderly Edge, Cheshire, came up with the idea of a biodegradable carrier which would constantly leak just enough drug to block androgen output. The carrier as the carrier itself erodes away in the moist tissues just beneath the skin.

They developed Taunton-Rigby, vice-president smaller than a grain of rice, yet and general manager of Vivocontaining enough drug chemical to castrate the patient gradable sutures—can be implanted by a hypodermic developed for the purpose.

The system has been tested in about 700 patients with prostate kept alive and healthy by a cell-cancer. ICI researchers say the culture process until they are evidence so far is that their ready to be implanted in the novel delivery system works novel delivery system works reliably and, with repeated Roche and Conoco. British might be required. Fauske and groups involved in the exercise Associates plans to sell commertue in the semi-permeable membrane. "chemically castrated" for were ICI, British Gas, the cial versions of the equipment. **Semiconductors**

IBM claims 'most dense' microchip

IBM SCIENTISTS at York-town Heights, New York, say they have made the world's densest integrated circuits using a focussed beam of electrous to write circuit patterns directly onto the surface of silicon chips.

They claim to have shrunk circuits into an area 16 times smaller than permitted by present day technology.

The new chips have been created by a fully-scaled half-micron process compared with conventional two micro line

widths used in commercial production today. A micron one-millionth of a metre.

IBM says its new circuits are in important step towards chips with over 100,000 logic elements and memories with 16m bits of data.

Vehicles

Suspension

DJB ENGINEERING of Peterlee has introduced a oil / nitrogen Suspension system on its 35 tonne payload off-highway articulated dump trucks.

Haul and load shocks are transmitted by oil from sus-pension cylinders and absorbed by nitrogen accumulators. A pneumatic load sensing system monitors the truck ride-height and adjusts the suspension level to compensate for the difference between loaded and unloaded

Materials

Diamond

SUMITOMO ELECTRIC IDdustrial of Japan claims to have developed a process for the mass production of large artificial diamonds for industrial use.

Tbe diamonds are said to be about six millimetres in diameter, almost ten times larger than those made by conventional processes, but can be sliced into smaller units. Diamonds produced by the

new process would be suitable for use in processing precision instruments such as computer disk drives and semiconductor lasers.

"100 years in quality building"



Security

Hackers

THE VALUE of the U.S. market for devices to prevent hackers breaking into secure computer systems, pirates copying software illegally and telephone "phreaks" making calls without paying will be worth \$741.13m this year and over \$1.5bn in 1989 according lo a new report from Frost and Sullivan, the New York based market research com-

Computer security is expected to account for nearly 95 per cent of all information security revenue, the report says, adding that the minicomputer system is expected to be the most incrative for standalone security products. The report costs \$1,650 from the company in New York or London.

Software

Lotus aid

LOTUS' 1-2-3 integrated soft-ware which combined spread-sheet, graphics and database in one package found instant success but it lacked a word

success but it lacked a word processor and was not too easy to use.

Its successor, Symphony, added a word processor but was even less easy to use. Now Optionware of Biomfield, Connecticut, has developed a package that makes word processing easy with 1-2-3, or so the company claims.

It costs \$99.95 and features

It costs \$99.95 and features word processor, instant graphies generator, calendar manager, phone directory and "to do list."

Data comms

Weather

BETTER WEATHER foreper less weather fore-casting is the promise of a new study in which Pectel, the computers and tey-communications arm of PA Consultants, is looking at the networking facilities required to support a system planned to support a system planned by the Meteorological Office to handle the data requirements of some 130 out-stations until the year 2000.

Behind every successful businessman, there's an efficient bank.

And behind more and more efficient banks, there's Hogan Systems.

Hogan Systems.

Providers of the world's most sophisticated flexible and proven software. To banks, finance and investment houses, Building Societies, To anyone, in short, who needs information for better decisionmaking in today's competitive financial

THE TECHNOLOGICAL EDGE IN FINANCIAL SERVICES.

INVESTING FOR **BEGINNERS**

By Daniel O'Shea

This book is based on a com This book is based on a complete series of articles published in the Investors Chronicle under the heading "Beginners Guide to the Stockmarket." It analyses the basic principles of stockmarket investment, discusses the different categories of quoted investment, examines a whole range of related essentials such as interpretation of company accounts and gives an up-to-date review of relevant tax rules. relevant tax rules.

In short, it is a complete guide to its subject. An ideal guide for people new to the stockmarket. Investing for Beginners should also prove valuable to experts who wish to refresh their ideas on basic aspects of the subject.

Published October 1984

Price: (including postage and packing': £8.75 UK or £10.25/US\$16 overseas Please note payment must accompany order

Further details available from: The Marketing Dept FINANCIAL TIMES BUSINESS INFORMATION 102 Clerkenwell Road London EC1M 5SA Tel: 01-1251 9321 Telex: 23700

▶ Proven system ► Rapid and cost effective Design flexibility ▶ Extensions or new build

FT15/4 Building for today.
 Planning for tomorrow.

This advertisement is published by S. G. Warburg & Co. Ltd. and Citicorp International Bank Limited on behalf of Entrad Investments (U.K.) PLC.

TOOTAL'S PROFIT FORECAST ETCHES MORE THAN THE IMAGINATION.

On March 28th, the Tootal Board forecast profits for the year to 31st January 1986.

That's an eleven month prediction based on the results of just one month. It assumed "there will be no material changes in

international exchange rates." But already this year the dollar has fluctuated

between \$1.038 and \$1.233 to the £. It assumed interest rates wouldn't change materially.

But already this year U.K. base rates have fluctuated between 91/2 and 14%.

How many more assumptions will be overstretched?

ACCEPT ENTRAD'S OFFER FOR YOUR

The Directors of Entrad Investments (U.K.) PLC (including those who have delegated detailed supervision of this nent) have taken all reasonable care to ensure that the facts stated and opinions expressed herein are fair and accurate and each of the Directors accepts responsibility accordingly.

HOGAN HOUSE, CHURCH STREET, WOKING, SURREY GUZI 1DJ. 7el: (04862) 27801

RESIDENT ABROAD

Resident Abroad, published by Financial Times Business Information, is Britain's monthly magazine for people living or working overseas. It informs and advises on all aspects of finance and business, with articles on UK and foreign investment, property, pensions, taxation and insurance. It entertains and informs on matters of health, education, travel and leisure

—all of this every month.

Tens of thousands of expatriates around the world already benefit from this magazine—ask yourself if you can afford not to join them. For subscription details and a free copy of the latest issue contact Janice Liverseidge on 01-405 6969 or telex 883694 ICLDN G

EVEN A cursory glance at the world civil zero engine market reveals that Rolls-Royce, the famous British producer, is not

exactly well placed. It struggles along a distant third with a roughly 10 per cent share, far behind its giant U.S. rivals, General Electric and Pratt and Whitney. Competition for every order is severe, because customers know they can play off the three suppliers against each other, and Rolls, which has recorded huge losses in recent years, has suffered more than GE and Pratt.

Rolls, with its relatively low production volumes, has been at a distinct disadvantage. Its dilemma has been how to make enough profit to keep pace with its rivals in the technology race when it lacks their economie of scale.

In recent years, Rolls has tried to overcome its inherent disadvantages in a number of ways. It has always prided itself on the wit of its design engineers, and it probably gets more bang for its R and D bucks than its rivals. It has also entered into joint venture agreements with GE, Pratt and others in an attempt to cool down the competitive temperature in market sectors.

But possibly the most important strategic move by the company has been its embrace of advanced manufacturing technology. The directors always knew that the best way to improve margins was to cut the costs of production, but on the group's low volume base that was not easy. The emergence of low-cost computer-control tech dramatically the number of nits promise of efficient production over of basehor of area with the number of used. Previously, a designer tion even of batches of one, pro-

the world of factory automation most cases, new tools had to be started from a rather poor base. designed for each new compo-Like most British manufac nent. By the late 1970s, Derby

Like most British manufacturers, the company in the mid1970_S was overmanned, and productivity was far below that of GE and Pratt.

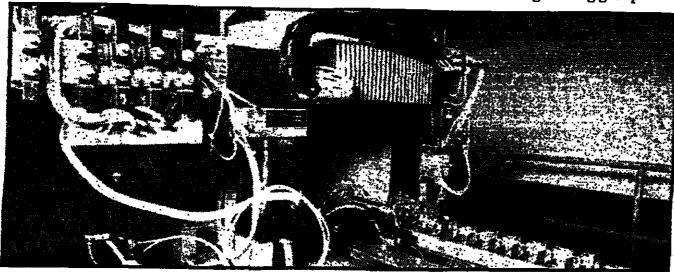
Rolls' directors recognised that there was no point in going ahead with modern methods unless the workforce would co-operate. In what became a widely publicised operation, Frank Turner, now manufacturing director, took a types, saying the company hunmanufacturing director, took a few senior shop stewards on a trip to the U.S. in 1978 to study productivity levels. The resulting joint report concluded that been cut from 2,000 to 100. Rolls was about 35 per cent Now, if an engineer comes up behind its rivals and losing with a component design that

nent design, production pro- year.
cesses and sub-contractors— The

Rolls-Royce aero engines

Tuning up for a tough race

Ian Rodger on the importance of technological advances to the UK engineering group



Rolls-Royce "can claim to be among the British leaders in installing advanced manufacturing technology systems

The most striking advance at Rolls was the decision to reduce used. Previously, a designer make decisions. If sub-contrac-didn't even think of cutting tors also use AMT, then they vided the opoprtunity. tools when he made a compo-However, Rolls' plunge into nent, with the result that, in

> types, saving the company hun-dreds of thousands of pounds. The number of turning tools for one family of components has

improve its own manufacturing, but also to rethink its buy-ortors also use AMT, then they can be relied on to make better components. Rolls decided that only two types of components should be kept in-house.

Those parts critical to the performance and reliability of the engines, such as compressor wheels and turbine discs. AMT could not only reduce manufacturing cost, it could s-co im-prove consistency of manufac-ture, thereby reducing the reject rate and after-sales service • High cost, high volume com-

ponents, which have the maximum gearing on company profitability, such as turbine blades. Unfortunately, by the time the company was ready to get moving in the early 1980s, sales had slumped and there was no money available for investment. ground.
With employee co-operation, the directors soon worked out a plan of action that would focus on three areas—component design that the directors soon worked out a plan of action that would focus on three areas—component design that the hast of the directors adopted a very get approval from the chief manufacturing engineer. Only three policy of undertaking only those projects that would pay for themselves from working capital savings in one year.

Name the last of the directors adopted a very get approval from the chief manufacturing engineer. Only three pays for themselves from working capital savings in one year. year. Nevertheless, they have made The second major area for significant progress, and can

dramatic savings in the machining of engine casings. The idea was to design a common pallet for as many casings as possible so that they could be set for machining more quickly. The resulting reduction in process time enabled the company to

The two other projects involve machining turbine blades. The first, the so-called robot line, arose from development in grinding technology in the 1970s. First came the so-called creep feed process, in which the grinding wheel removed all the metal in one deep pass rather than several shallow passes. Then on-line measuring and computer control were added so that corrections for wear on the grinding wheel could be made constantly. The effect was to reduce average blade grind-ing time by 1981 from 61 minutes to 17 seconds,

However, that rate was too fast for a human machine oper-ator to handle, and so a £1.5m robot handling system was in-stalled in 1982 to serve a bank where costs could be reduced significantly.

It is now widely recognised that production costs can be to adopt advanced manufacture.

The second major area for significant progress, and the stalled in 1982 to serve a bank now claim to be among the stalled in 1982 to serve a bank of 14 grinding machines. The agric manufacture and the second major area for significant progress, and the stalled in 1982 to serve a bank of 14 grinding machines. The second major area for significant progress, and the stalled in 1982 to serve a bank of 14 grinding machines. The second major area for significant progress, and the stalled in 1982 to serve a bank of 14 grinding machines. The second major area for significantly.

The second major area for significant progress, and the stalled in 1982 to serve a bank of 14 grinding machines. The significantly.

So far, three main projects for grinding 250 blades from

significantly reduced if components are designed with a view to simplified manufacture.

The most striking advance at Rolls was the decision to reduce read to the reduce read to the reduce of AMT to the reduce of the reduce read to the reduce of the redu ing machines, with automated loading of both blades and

> end of the line,
> If the inspection equipment reveals that the grinding is coming close to tolerance limits, cut inventories by 70 per cent. the computer control automatic. The project paid for itself in ally adjusts the grinding wheels. The result is that the reject rate is less than 1 per cent, compared with about 3 to 4 per cent on average in the company's grind-

grinding wheels and two inte-

ing operations.

The system is flexible enough to handle blades in batches of one varying in length from 11 inches to 10 inches and each blade takes only 3½ minutes to machine. Only two people operate the system; Rolls says it would take 30 men to achieve a similar rate of output, with less consistency, on manual machines. Rolls claims that the Hauni-Blohm system paid for itself within a year, and the company is flattered that Pratt has placed an order for one.

Rolls's most ambitious project, due for completion later this year, will automate much of the machining of discs and wheels. The key to this project is the very high value of these components—some cost as much as £10,000-and so any reduction strike."

advanced, and was developed by Rolls in co-operation with Hauni Blohm, the West German machine tool builder. Installed of process time can be highly rewarding.

The project, called AIMS, is budgeted to cost £10.2m and, now that the company is facing better trading conditions, it has been allowed a slightly longer payback period, estimated at just under two years. AIMS comprises a computerised raw

material store, a process area with computerised overhead transfer function and automated guided vehicles to link the store and machines with welding, heat treatment, laboratory and inspection areas.

Rolls officials have no doubt that the success of these and other automation projects are vital to the group's survival in the brutal. civil aero-engine business. They have played a major part in reducing the Derby group's manpower by about a third in the last five years to 13,500 and improving productivity. "We believe that today we operate with similar

today we operate with similar manufacturing productivity to our rivals," Turner says.

However, like everyone else that has ventured into AMT projects, Rolls engineers have had their difficulties with automation projects and they know that each one will hear a see that the say of the s mation projects and they allow that each one will bring new problems. As Turner puts it: "Automated machinery and adproblems. As Turner puts it:
"Automated machinery and advanced manufacturing systems are exceedingly complex. And the more complex they are, the more difficult they are to succeed with." His view is that companies should simplify manufacturing processes as much as possible before automating.

grated inspection stations at the mating.

He is also insistent on the importance of training everyone in the organisation to be ready for automation. He said Rolls made the mistake early on of sending middle managers out for short courses.

"Nothing happened. They came back, and everyone treated them as if they had had a holiday. You have to train from the top down. I have to train myself so that I can train my managers so they can train

Rolls still has some way to go to prove that it can stay the course in the civil zero engine business. But it is expected to report a substantial improve-ment in 1984 following the disastrous £198m loss in 1983, and the AMT projects are clearly helping.

They are also doing something to restore the pride of British engineering. "It is in this theatre that British Industry has a chance of moving ahead," Turner says. "And we can use AMT to dispel our image of the content of the conte caps and workers

Nationalised industries

Team briefing: not yet proven

when the management team briefing in principle, announced it was introducing said, but around a communication to an around a communication to a communicat

when the management team orients an announced it was introducing said, but around a limit of detail and clearly didn't like it detail and clea

don Electricity, United Counties, North Thames Gas and British Telecom on this increasingly popular topic. One notable absentee was the National Coal Board.

John Garnett, the Industrial

John Garnett, the Industrial steward stood at the door and Soolety's director, is a leading frictic of the NGB's historical failure to communicate directly with workers rather than through the union structure. In the post-strike climate the Board says it intends to communicate directly, but it remains to be seen how this will work out.

The conference concentrated on team briefing, the system whereby employees in groups and authority of first-line failure to communicate directly with workers rather than through the union structure. In the post-strike climate the Board says it intends to communicate directly, but it remains to be seen how this will

on team briefing, the system whereby employees in groups of about 15 are briefed by their superiors for half an hour a month on things like plans and performance. Briefings happen in layers from the top to bottom of the organisation. The Industrial Society, a hands-across-the-divide body

with union leaders, including left-wingers, on its council, likes to portray team briefing as a logical division between management and union respon-sibilities; it is management's job to get its message over to employees, and the union's job to represent members' views through the consultation and negotiation machinery.

In practice that can mean a controversial shift in the balance of shopfioor power. Several speakers said their organisations had turned to team briefing because they were too reliant on union structures for communication. tures for communication. David Wells, acting general manager of British Telecom's

London Centre Area, said BT have got to do," he said. started to attend the briefings. became interested in team

A SHOP STEWARD at the briefing during the provided United Counties Bus Company tion dispute in 1983, when it saw immediately what it was about and was violently hostile.

"You are trying to take a lot setting its message across of our power away," he said when the management team briefing in principle.

industries which was organised by the Industrial Society.

A packed house from all over through the shop steward. The the public sector came to hear attitude of the trade unions speakers from British Rail, London Flatricity United Com-

change."
At United Counties, voluntary attendance by shift workers at team briefings had ranged from nil to 80 per cent. In the former case, said Tate, a shop steward stood at the door and threatened to remove who went in

and authority of first-line

supervisors. It was not all plain sailing. Clive Myers, northern area divisional manager at the London Electricity Board, gave an honest account of the diffi-culties he had encountered in introducing team briefing.

He had not done enough himself to convince his immediate subordinates of its merits, and for outdoor workers because area managers were not sufficiently convinced that its merits outweighed the cost of taking them off the job. Team briefing was not yet a proven

quantity, he said.
Sir Richard Cave, deputy chairman of the British Railways Board, said employers had concentrated too much on video and written communications and too little on face-toface sessions. These needed to be structured and regular. "We all realise what a big job we

Brian Groom

WHEN YOU CAN'T MIND YOUR OWN BUSINESS, WE'LL DO IT FOR YOU.

Tough meetings and hard bargaining don't give you the time to worry about routine. Which is why Hilton puts its Business Centres at your service. Telexes, letters, photocopiers, or literature courier service. Leave them to us. And leave yourself free to take care of your business.

Abu Dhabi AlAin Bahrain Dubai Fujairah Kuwait

For reservations call your travel agent, any Hilton International Hotel or Hilton Reservation Service — in London 631 1767 and elsewbere in the U.K

This advertisement is published by S. G. Warburg & Co. Ltd. and Citicorp International Bank Limited on behalf of Entrad Investments (U.K.) PLC. **WE'VE DONE WONDERS FOR** TOOTAL'S SHARE, PRICE



BUT WONDERS CEASE ON APRIL 18th.

Entrad is offering 72.5p for each Tootal Ordinary

Share. That's 31.8% above the price on January 29th, the day before we made our last formal approach to the

And it's 49% above the price we paid for our first Tootal shares only last August.

But our offer of 72.5p plus a final gross dividend of 2.67p is final.

And unless there are sufficient acceptances by 3.00pm Thursday, April 18th it will lapse. What happens then? Remember December 27th.

ACCEPT ENTRAD'S OFFER FOR YOUR

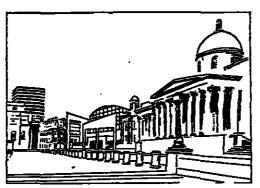
someble care to ensure that the facts stated and opinions expres each of the Directors accepts responsibility

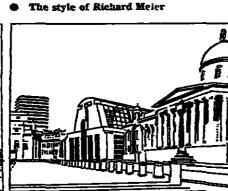
THE ARTS

The style of James Stirling The style of Norman Foster









• The style of Michael Graves

Architecture/Colin Amery

Seven ways to lance a carbuncle

It is time to cheer and wave designs-based on existing work the Prince of Wales's feathers furiously in the air. Carbuncles have been consigned to oblivion and the slate is clean for a brilliant new extension to the National Gallery. Now is not the time and here is not the place to grind through the reasons for the failure of the compet-tion to produce a satisfactory result; it is enough to celebrate the fact that the whole of the site is now to be used by the gallery — and this would not have happened without the demonstration of the impossibility of mixing art and commerce on government-owned.

It is the moment for positive thinking, for cool and intelligent assessment of this magnificent architectural opportunity. It is also the moment for profound gratitude to be expressed to the generous Sainsbury brothers, Sir John Simon and Timothy, who have agreed to fund the entire project.

The final choice of an architect will be made by the donors and the trustees, who have decided to invite six architects from around the world to submit their design proposals. One fortunate man will then be commissioned. This is the approach which has apparently worked successfully to select architects for both the new BBC building and the extension to the Royal Opera House.

Today, and entirely in the

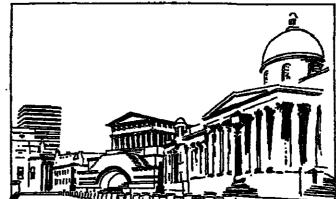
-that might come from archi-tects likely to receive such an

 James Stirling is clearly the most important British candidate. He has recently extended the Staatsgalerie in Stuttgart with total success. While he is not short of gallery work (he is present extending the Tate London and Liverpool), he has yet to design a major pub-lic building in his own country. He has an understanding of Neo-Classicism and a sense of history.

• Norman Foster is not un known to the donors and there might be a feeling that a less might be a reeling that a less historic approach is needed. Foster is now working on a design that includes the use of Portland stone for the new BBC headquarters, and a classical monumental building in Nimes. In Hong Kong, his bank tower has closure how averaging techhas shown how expensive technological innovation can be; but he seems to be on the brink of a change in his style.

Hans Hollein from Vienna has recently completed a promising art gallery at Monchen-gladbach. He likes contrasts, and his undulating lines carve up the cube with a considerable degree of elegance. He is also a decorative architect with a gift for interesting interiors and the use of rich materials.

· Richard Meier is the American who was selected after the most rigorous search to design and is waiting for the right designer—he had better remain opportunity to build. His lack anonymous—who seems to have Getty Museum in Los Angeles.



An anonymous designer suggests an elevated gallery that dignifies the whole of Trafalgar Square

When you compare his smooth him but he would know in technology with the work of an civic terms what to do in Traarchitect like Stirling, it is like a washing machine alongside the Parthenon. He has softened up a bit recently, and the High Museum in Atlanta has lapsed into the pastels of post-modernism.

• Leon Krier is an internationally-known voice in favour of a revival of Classicism. This Luxembourg-born architect has lived for a long time in England

falgar Square.

• Another American, Michael Graves, is a contender. His drawings often are more alluring than his buildings and we have yet to see what he can do using materials. He is an immaculate colourist and has a distinct gift for interior design.

I was intrigued by the submission of a young unknown

by the site. What has always been needed in Trafolgar Square is a sense of height to balance the length of the existing gallery. Here, a grand staircase rises to the elevated temple. In the glazed peristyle is an elegant restaurant, with access to fine-weather terraces. It is possible to proceed to the galleries or just visit the shops and lecture theatres, all located to be accessible when the galleries may be shut.

For this scheme to be totally successful, the Sainsburys should, in an ideal world, buy the hideous Royal Trafalgar Thistle Hotel behind the Hamp-ton site, demolish it, and build their new galleries right up to Orange Street.

Should the selected architect Should the selected architect be British as a matter of chauvinistic pride? Naturally, it would be splendid to add another great British name to those of Gibbs, Lutyens, Landseer and Wilkins and others who have worked in Trafalgar Square. But the only criterion that matters is that the man to be selected should be the best designer of the best new gallery in the world.

This is a subject to which I shall return. It is the most important commission for decades and, this time, everyone has to get it right. The debate thing is certain—the Prince of Wales will have to cut the ribbon in three to four years

Lucia di Lammermoor/Covent Garden

Rodney Milnes

It was hard to approach Joan deserved as that of 1959, Sutherland's return to Covent To secure the equally im-Garden as Donizetti's Lucia, the mortal Carlo Bergonzi to role that launched her on an partner her was a coup on the international career 26 years part of the management. With ago, without striking some sort the first notes of "Sulla of pre-conceived attitude, if tomba" he showed what, for all the striking some sort the first notes of "Sulla of pre-conceived attitude, if tomba" he showed what, for all the striking some sort the first notes of "Sulla of pre-conceived attitude, if tomba he showed what, for all the striking some sort the striking sort the strikin orly out of self-protection, their other qualities, we miss in Would rosy-hued nostalgia or today's tenor superstars—the world-weary cynicism best fit sheer joy of making music. The the bill? In the event, neither, way he carries his voice Her unbelievably fresh perform-through notes to mould musical ance rendered the safety net of phrases of sensuous beauty nostalgia wholly dispensible, and cynicism in the face of the warmth and generosity of how to put it—endearing, and terms, this was a great evenher singing would be simply it would be wrong to pretend ing. Given the circumstances, inhuman.

that this was a penetrating allDame Joan's voice is change round performance of Dohivery skilfully.

The style of Leon Krier

ing with the years. Her tone is noticeably brighter than it was in the 70s—the veiled, all-purpose "aw" sound is now notable by its absence—and with this comes clasify of allwith this comes clarity of dicwhat words can do: the verbal and tonal colouring in "Ardon gl'inceusi" brought an even more potent frisson of Gothick horror than in the old days. This fresh interpretative resourcefulness has not been achieved at the expense of, or as a substitute for technical skill. The scales and decorative fioriture purl as winningly as ever, and the perfectly voiced arpeggios and staccati made even the interminable and wholly unauthentic Mad Scene cadenza not merely tolerable but actually rather exciting.

In the Fountain Scene the odd high note edged very slightly off pitch, and one noticed how carefully she was husbanding her breathing; her last visit to Bow Street, in Esclarmonde, had after all not been the happiest of occasions, and there was tension in the air. But thereafter she relaxed, every note was spot-on and, aided by dramatic skills that have developed with the years, she enjoyed a triumph quite as remarkable and as roundly

zetti's masterpiece though, together with Dame Joan, John Rawnsley (Enrico) and Gwynne Howell (Raimondo) were pointing towards one, and Jeremy Sutcliffe's re-staging of Zeffirelli was tidier than last time. But if, in these days of taking opera Very Seriously Indeed, we lose the ability to respond to virtuosity on so Himalayan a scale, then we are puritanically denying a significant aspect of the form's historical and con-Begonzi's acting is a evertinuing appeal. On its own terms, this was a great even-



Joan Sutherland

Three Sisters/Royal Exchange, Manchester

Martin Hoyle

Michael Frayn's new transla- co tion for the Royal Exchange company aims at the directness and naturalness of Chekhov's original. How far it must share with Casper Wrede's production responsibility for a tendency to exaggeration is a nice point. One playwright's translation of another inevitably entails comment, underlining and endorsement, that comes over like a book, Olga faintly distraught with paper-work, Irina running with paper-work training of the company of the compa critic bringing details to our attention, perhaps at the expense of the whole picture. A small example. When bossy Natasha is yet again boring the her subsequent reminiscence is almost resentful. The strength

company with her latest baby, her brother in law the ineffectual schoolmaster, used to say, "Yes, she's a beautiful child." A good Kulygin could pack a world of wistfulness into that child, it must be said." Certainly in character, but perhaps too predictably so; moreover, here it emphasises David Ashton's re emphasises David Ashon's gratingly caricatured interpretation in a style little different from his sent-up Scottish doctor in TV's Brass—far too broad. If Jonathan Miller's production a decade ago made one re-alise how often these people say they're tired (and threatened to send one stagger-ing somnolently from the theatre), the main impression of Mr Wrede's direction is of the sheer unpleasantness of the

yearning romantic. Janet McTeer's Masha begins as abrupt and sullen, gives vent to sudden outbursts of anger, often seems to seethe with rage. Despite her tremendous natural presence, this self-absorbed shrew can count herself lucky to have met a similar egotist (Sven-Bertil Taube's blandly loquacius Vershinin hits the right note of enthusiastic non-

communication) to alleviate her off-stage cries, sealing the sis-all too explicable loneliness, ters within the confines of their the production starts well backwater while life continues The production starts well. Pale sunlight filters on to Di Seymour's handsome set with its combined drawing-room (a square plano) and dining-room (a table for 18), a blend of intimacy and spaciousness. The sisters declare themselves im-mediately: Masha engrossed in in, carefree. Olga's reminder of the anniversary of their father's death has a reproachful note:

of Emma Piper's performance is that we glimpse the lovable beneath the harassed. Some enterprising producer world of wistfulness into that can now cast all three sisters sentence, in contrast with his from Cusacks. This season's usual seldimportant pedantry, and fleetingly illuminate his own childless, barely tolerated, marriage to bored Masha According to Frayn he responds pompously with "An admirable child, it must be said." Contains of salists. This season's model is Naimh: as sturdy, attractive and reliable as the triangle as the own childless, barely tolerated, well as wistful, this Irina takes as well as wistful, this Irina takes competition last year. One can imagine that his light, slightly well (perhaps with an element of salists). This is a sturdy, attractive and reliable as the triangle won the Santander Competition last year. One can imagine that his light, slightly dry touch, neatness and expreswell (perhaps with an element of relief?). This is ungracious. as Christopher Bramwell's Tusenbach provides the most complete portrait of the whole production.

Mr Bramwell's naturalness contrasts with others who fail
—and the new translation is no
help —to make those Chekhovian thumbnail sketches, those unsolicited self-analyses, any-thing more than unspontaneous set-pieces. Especially notice-able in Nicholas Blane's Andrey, complete with Heathian diphthongs

Natasha is an almost unredemed nasty—all the more odious, like Aunt Norris in Mansfield Park, in being the

beyond. The auditorium's main doors open to reveal the garden continuing outside, ending with a bonfire of dead leaves—a limbo through which Masha can run to bid farewell to her departing officer (here Miss McTeer is powerful and moving). Helena McCarthy's sweet little dumpling of a nurse, Rory Edwards's menacing Solyony and the ripe thea-tricality of Espen Skignberg's Doctor are credits.

Hugh Tinney/Elizabeth Hall **David Murray**

pianist Hugh recapitulation sound conclusive. won the Santander The Rondo tune got lively treatdry touch, neatness and expressive restraint must appeal to the Spanish. The northern Spanish, at least: Albeniz's "El Albaicin," which he played in his Elizabth Hall recital an Thursday, is decidedly Andalusian; and though it was very tidy it neither created much atmosphere nor made much of the long, meaning give a new sense to its recurrences. Without infringing any canon of good taste, this was a reading without weight or much of the long, moaning chants between the guitar thrumming. The Fifth Sonata of Skryabin was similarly overof Skryabin was similarly over-restrained—too safe, in a word. Tinney found the right breadth of tone for the last climax, but the want of any volatile urgency earlier had reduced half the music to decoration.

by odious, like Aunt Norris in Mansfield Park, in being the creation of a writer who rarely condemned totally. But that is no excuse for this coarse Coronation Street parody of north-country pushfulness.

With the last scene the production comes into its own. The Exchange's echo lends an otherworldliness to those distant

Sounds of Sweden

Rodney Milnes

The four-day Sounds of Sweden Festival opened at the Wigmore Hall on Thursday evening with-as the old translation of Tosca put it—a strange harmon of contrasts, a duet recital by Elisabeth Söderström and her young compatriot, Krister St Hill. At 23, Mr St Hill already has six years' ex-perience as a dancer and singer in musicals; recently he has turned to opera and song, and was introduced to London audiences by Kerstin Meyer in ness seldom met in song

He has vocal talent way out

ment, but the second subject

remained detached from any context, without an infection to

Much of his best playing came

of the ordinary, his notably well-schooled baritone focussed tightly on to the notes, powerful -almost whitely strident-at at the top, but with real tonal substance lower down. He brings an amazing range of colour and dynamic to his sing-ing, but without a whist of selfconsciousness. Thanks to a striking stage persona forever threatening to burst free of the confines of a concert setting, there is about him a sensuous-

recitals. recitals.

This was especially apparent in songs by Stenhammar and Larsson, the former's "Jungfru Blond" unsettlingly macabre, the latter's "Kissing Wind" caressed with the lightest of touches. Mr St Hill's sense of line and above these line and phrase were not quite enough to see him through Ravel's Don Quichotte and work to be done on Latin lan-

guages and on the art of achiev

ing more with less. But he is ing more with less. But he is young yet.

Miss Söderström's soprano was as ever like the very best Sheffield plate, the coppery warmth glowing through that inimitable silvery surface, with her individual vibrato adding extra plitter. Badings and Much of his best playing came in Chopin's 24 Preludes. There was real brilliance in the fingerwork of the B-flat minor prelude (the not dissimilar F minor needs stronger rhetorical flair, and didn't get it), and among some of the gentler preludes that bloomed under his careful, unforced touch the F-sharp one was affecting and pretty. One expected his A-flat and E-flat preludes to be smooth and serene, but he chose her individual vibrato adding extra glitter. Radiance and strength at the top were not found wanting in the Chai-kovsky group, nor was familiar interpretational resource (at least six different voices in his Cuckoo"). Two lovely songs by Bo Linde were quite fault-lessly delivered.

The voices did not blend obviously in duet—certainly not in two rather hectoring numbers by Sinding and Hildach. But

careful, unforced touch the Fsharp one was affecting and
pretty. One expected his A-flat
and E-flat preludes to be
smooth and serene, but he chose
surprisingly to make them insistently muscular (and the
coda of the former suffered
from an ugly low A-flat on his
piano). There was a good, deep piano). There was a good, deep resonance in the stately C minor. In general the most salon-style pieces and the rapid digital challenges were happlest; no darker intimations made much impression, and the range of moods was modest.

Arts Guide

Music

Music/Monday. Opera and Ballet/Tuesday. Theatre/Wednes-day. Exhibitions/Thursday. A selective guide to all the Arts ap-

Shostakovich, Janacek (Tue), The Shostakovan, Janatesk (Ine). Ine Alban Berg Quartet, Mozart, Rihm (Wed). Salvatore Accardo, violin, and Bruno Canino, piano. Mozart, Beethoven, Prokofiev, Bavel (Thur).

Isaac Stern recital with Andrew Wolf (Mon). Salle Pieyel. (561 0630).

Les Arts Florissants conducted by William Christie: Oratorios for Easter, Charpentier, Rossi (Tue). Salle Pieyel. (561 0630).

Nella Anfuso recital with harpsichord, viola de gamba, cello: Rossi, Scarlatti, Vivaldi (Mon). Theatre de l'Athenee (742 0727).

Barrett Sisters from Chicago: Negro Spirituals and Gospel songs (Tue, Wed, Thur 6.30pm). Theatre de la Ville. (274 2277).

Orchestre National de France conducted by Maximiano Valdes, Radio France-Choir: Offenbach – Hoffmunn's Tales (Wed). Theatre des Chemps Elysées. (723 4777).

Orchestre de Paris conducted by Da-

Orchestre de Paris conducted by Daniet Barenboim, Itzhak Perlman, vi-olin: Beethoven, Henze, Bach (Wed,

Thur). Salle Pleyel. (561 0630). Chow Ching Lie, piano, Liu Yu Xi, violin: Franck, Mozart, Beethoven, Liu Yu Xi (Thur). Théáire des Champs Elysées. (723 4777).

METHERLANDS

Amsterdam, Concertgebouw. The Amsterdam Philharmonic conducted by Ken-Ichiro Kobayashi, with Janp van Zweden, violin. Beethoven. van zweden, vioun seethoven (Tue). The Concertgebouw Orchestra under Antal Dorati with a lunchtime concert (Wed). Antal Dorati conducting the Concertgebouw Orchestra, with Andres Schiff, piano. Schubert, Schumann, Brahms (Wed, repeat Thur). Recital Hall: Robert Holl, baritone, accompanied by Ru-dolf Jansen. Schubert (Mon). The Caecilia Consort. Schaft, Hindemith,

erdam, De Doelen. The Rotterdam Philharmonic under Alexander Rah-bari, with Emmy Verhey, violin. Mendelssohn, Paganini, Kodaly, Rimsky-Korsakov (Tue, repeat Wed, Thur). Recital Hall: Hugh Tinney, piano. Beethoven, Albeniz, Scriabin, Chopin, Liszt (Wed). Wout Coster-

Chopin, Liszt (Wed). Wout Coster-kamp, baritone, accompanied by Theo Bless (Thur). (142911). Utrecht, Muziekcentrum Vredenburg. The Utrecht Symphony Orchestra under Hubert Soudant with the European premiere of Bruckner's 9th Symphony completed by William Carragan (Tue). Recital Hall: The Alban Berg Quartet. Wout Coster-kamp, baritone, with Theo Bless, piano (Wed). Wolter Bierbos, trombone, and Ernst Reyseger, cello (Thur). (314544).

he Hague, Congresgebouw. The Hague Philbarmonic conducted by Hans Vonk, with Lynn Harrell, cel-lo. Dworak, Strauss (Thur). (54800). The Hague, Diligentia. Chamber en-semble of the Hague Philharmonic. Fontana, Bach, Mozart, Szymanovs-ki, Hindemith, Klebe (Wed).

(19 13 18).
Arabem, Schouwburg, Guido Ajmone
Marsan conducting the Gelders Orchestra, with Helena Döse, soprano.
De Falla, Ravel, Debussy (Tue).
(422741).

Palais des Beaux Arts: Itzhak Perl-man, violin, and Bruno Canino, pia-no - Pergolesi, Stravinsky, Bach, Beethoven (Mon); Belgian National Orchestra conducted by Mendi Ro-dan with Emil Gilels piano. Tehni-berghy. Stravinsky (Thurb Stravinsky. (Thur).

NHK Symphony Orchestra: Conduct-ed by Berislav Klobucar; violin, Ger-hart Hetzel. Bartok, Prokofiev. NHK Hall (Wed, Thur). (465 1780). Alexis Weissanberg (piano): Scarlatti, Schumann, Rachmaninov. Tokyo Runko, Kaikan, (Wed). (256 181). Bunka Kaikan, (Wed). (3540101;

980 6060).

Des Tonhalle Orchester, Zurich, conductor Christoph Eschenbach; piano, Alexis Weissenberg, Brahms.

Tokyo Bunka Kaikan. (Thur). (545 8348; 571 1689).

National Symphony (Concert Hall): Conductor, Christopher Hogwood; french hormst, Barry Tuckwell: All-Mozart programme (Tue). Conduc-tor, Christopher Hogwood. Vivaldi, Handel Stravinsky, Martinu (Thur). Kennedy Center. (2543778).

NEW YORK

New York Philharmonic (Avery Fisher). Conductor, Klaus Tennstedt; pianist, Ivo Pogorelich: Blacher, Prokoffev, Schumann (Tue). Conductor, Raymond Leppard; soprano, Cynthia Clarey; violinist, Carol Webh. All-Handel programme (Thur). Lincoln Center (8742424).

April 12-18

Carnegie Hall: Polish Chamber Or-chestra. Conductor, Jerzy Maksym-iuk; cello, Jerzy Klocek: Lutoslaws-ki, Haydn, Max Reger, Shostako-vich (Mon). National Orchestra of New York. Conductor, Alvaro Cassuto; mezzo-sopreno. D'Anna Fortuna-to. Mahler, Stranss, Rochberg (Tue). Tokyo String Quartet: Haydn, Sme-tana, Beethoven (Wed). (2477459).

CHICAGO hicago Symphony (Orchestra Hall): Conductor, Sir Georg Solti; flautist, Donald Peck: Stravinsky, Gonkl, Beethoven (Thur). (4358122).

Royal Philharmonic Orchestra con-ducted by Peter Gellhorn with Mar-garet Bruce, plano. Beethoven, Mo-zart and Brahms. Barbican Hall

zart and frams. Barokan Hall (Mon). (6388891). hilharmonia Orchestra and Chorus conducted by Yevgeny Svetlanov with Jean Rigby, mezzo-soprano, Robert Tear, tenor and John Shir-ley-Quirk, bass. Elgar's The Dream of Gerontius. Royal Festival Hall (Mon). (6283191). (Mon). (2283191).

London Sinfonietta conducted by Simon Ratile with Philip Langridge, tenor and Philip Eastop, horn. Mozart, Britten, Ravel and Strauss.

Queen Elizabeth Hall (Mon).

(9283191). London Philharmonic Orchestra conducted by Jesus Lopez-Cobos with Youri Egorov, piano. Prokofiev, Rechmaninov and Tchaikovsky. Royal Festival Hall (Tue).

Bonnie Scott's, Frith Street Singer Nina Simone with drummer Paul Robinson. Also jazz-funk band Cayerne.

Opera Viva/The Place

Rodney Milnes

miere. Paul Barker's The Marriages Between Zones 3, 4 and 5
serves to remind us how little
new opera has been heard in new opera has been heard in recent years in London, where more energy seems to be going into the "controversial" presentation of old works than into the renewal of the genre. The lack of a company, of a theatre even, for chamber operas, whether mildly experimental such as this or already established, is something of a scandal. All praise, then, to Opera

By the very fact of its pre-

Viva for presenting this setting of Doris Lessing's mystical parable as part of the British Music Society's Opera in Retro-spect in European Music Year. The evening requires some foreknowledge of the novel, or at least a careful perusal of the programme note, plunging as it does in medias res with the marriage of Alrith (high soprano). Queen of peace-lov-ing and matriachal Zone 3, to King Ben Ata (baritone) of warlike Zone 4. Variegated mari-tal rape, growing conjugal ten-derness, the development of a triangular relationship with ex-Queen Dabeeb (mezzo), and Ben Ata's remarriage to Queen Vahshi of Zone 5 (dancer) are encompassed in a mere 70 minutes of music and two acts, with the aid of a children's chorus and a Lessing-like narrator:

Mr Parker commands that which whizzes by in far less than its actual 45 minutes; the short second act falls rather too neatly into separate set numbers and even though one of them, a canonical love duet, is the most immediately attractive moment in the score, the pace falters. The musical language need frighten no one able to take, say, Lulu, inhibiting as it does that beguiling frontier zone somewhere beyond ton-ality, yet before that of "any-

thing goes." I certainly came out humming one of the tunes. The soloists responded fear-lessly to the vocal challenges, with Christine Barker (Al-ith) soaring lark-like into the altis-simo stratosphere, Mary Weigold projecting the narrations with exceptional clarity, and Julie Wilde (Dabceb) and John Oakley-Tucker (Ben Ata) supdesigned by Carol Stevenson.

smoothly produced by Christopher Newell, and firmly conducted by Christopher Willis.

was a Storytelling Festival.

But perhaps the most notable Wales will be helping Battersea decision at Battersea was to choose a City accountant, Mr May 14.

Sponsorship/Antony Thorncroft Battersea's royal drive

ness is the obvious first call.
Oddly enough, some of the smaller, community based arts groups have the best chance of picking up sponsorship; mainly because they are looking for much smaller sums, but partly because there has been a switch among business sponsors away from the very costly large event to local aid, which bad a more local authority, Wandsworth, force and their image in the

The Government's policy of holding arts subsidy to roughly the level of inflation has certainly concentrated the minds of arts administrators, They are being forced to find alternative sources of revenue, and business is the obvious first call.

Oddly enough, some of the smaller, community based arts groups have the best chance of comparatively small, but tied to

force and their image in the will not make up the difference neighbourhood. —hence the need for sponsors, Battersea Arts Centre is the and a belated attempt to raise quintessential local arts body. more money from the box office, It has rather grand, if not As in many such ventures, the always suitable, premises in the lines between an arts centre arways suitable, premises in the arts and crafts splendour of the old Battersea Town Hail, and much of its energy is spent on "out-work" — sending much of its energy is spent on "out-work" — sending actors, musicians, artists, potters etc to local schools, old people's homes and youth clubs. Ruf is her westere facility are blurred. We having some artistic appeal Battersea can convince confused companies, unsure whether they should support the arts. plying enigma and tamed brutality respectively. The chorus, from the Croydon High School for Girls, dealt deftly with music that was not easy. The premiere had been most carefully prepared economically designed by Carol Stevenson. BRACKEN HOUSE, CANNON STREET, LONDON EC4P 4BY Telegrams: Finantimo, London PS4. Telex: 8954871 Telephone: 01-248 8000

Monday April 15 1985

dangers posed to their own constituents by the excessive

strength and instability of the dollar. They are becoming more

aware that macroeconomic

policies pursued in other countries can have a direct and important bearing on the strength of their own economy

and some of them are becoming genuinely alarmed by the ferocity of the protectionist sentiments which the combination of an economic slow-

down and the over-valuation of the dollar threatens to unleash.

At any given stage of the world economic cycle, calls for

international co-ordination tend

to come from the laggard nations, only to be dismissed by the countries enjoying

stronger economic growth. In the past few years this law of

blocked international progress since the Europeans have never

been able to speak with a united voice against the pros-

perous indifference of the U.S. In the period ahead the tables could be turned and as this

happens an even more impor-

tant element of theoretical ferment may be added to the

pragmatic considerations which are pushing U.S. policitians to look at economic policy in a global framework.

A slowdown in the U.S. econ-omy-especially if it is accom-

panied by a major weakening in the dollar or further rumbl-

ings of the still unresolved in-ternational debt problem—will

cut through some of the more extreme forms of laisser-faire

rhetoric which have vitiated

serious discussion of inter-national policy co-ordination.

national banking.

In recent years there has

been no shortage of construc-

tive ideas for improving the

workings of the international

Further rumblings

τealpolitik has

Farewell to laisser faire

tentative signs of a sea-change in governments' thinking on economic affairs. In particular, the concept of international coordination of monetary, excles is re-emerging gingerly from the obloquy and ridicule to which, for five years or more, it has been fashionably consigned, change rate and even fiscal poli-

Even a few months ago it would have been tempting to write off as a redundant charade the series of top-level economic meetings which began last week at the Organisation for Economic Co-operation and Development in Paris, continues at the International Monetary Fund in Washington this week and will culminate next month with the Bonn economic sum-

Today, however, such cynicism seems at most half-justified: the meetings may still prove ex-ercises in rhetoric, in the ercises in rhetoric, in the sense that little immediate, con-crete progress may come of them; but few world leaders would claim today that the effort to co-ordinate economic management internationally was in itself redundant.

Change of heart

The most important change of heart is the one which appears to be taking place in the Reagan Administration.
Friday's proposal from Mr
James Baker, the new U.S.
Treasury Secretary, for an international monetary conference, to be held in Washington in the summer, was on its own only a straw in the wind. Many of the events and state-

ments which have surrounded and preceded Mr Baker's pro-While it would be foolish and unrealistic to seek a return to posal suggest that there may soon be genuine scope and the fixed exchange rates and Keynesian demand manage-ment of the 1960s, it is bedesire among governments for a serious review of the way the international monetary and trading system has evolved in the 12 years since the break-up of the Bretton Woods framecoming increasingly clear that market forces alone cannot always bring stable non-inflation-ary growth in the absence of timely and appropriate governwork. Recent speeches by Mr George Shultz, the U.S. Secre-tary of State, and Mr Baker ment action, whether it is in co-ordinating fiscal policies, overseeing financial flows or pressing the prudence of interhimself, to say nothing of Mr Paul Volcker, the Chairman of the Federal Reserve Board, have shown a far greater awareness of international economic linkages than was ever evident in the arrogant dismissals of all foreign criticisms during the economic system. Both the agenda and necessary fora for term of the Reagan Administration. agenda and necessary for afor The reasons for this new- a serious review of inter-

found, if tenative, willingness national economic policy are to listen to outsiders are ready and wating for the poliobvious enough. U.S. politicians tical will to make use of them.

frequency, or the painful and slow process of putting in place policies, institutions and incentives which will make more efficient use of Africa's resources, expand its abilities and reduce its vulnerabilities to external factors, including

With this stark alternative Mr A. W. Clausen, President of the World Bank, summarises the industrialised countries' res-ponse to what he has called "the worst economic crisis any region has faced since World

In the capitals of Western Europe and America, the consensus today is almost universal: Africa needs help desperately: but, in the long run, aid could do more harm than good, unless African covernments turn their backs resolutely on the 20 years of disastrously misguided policies which have brought them to their present sorry

pass.
The indicators of Africa's economic mismanagement are unambiguous and appalling-not unambiguous and appalling—not just in terms of mass starvation. Even before the present drought, food production had been falling far behind population growth, so that the output of food per head was lower in 1982 than in 1970 in all but seven of sub-Saharan Africa's 29 countries. Had this trend continued. Africa's inability to feed itself would even without a drought, have become as a drought, have become as tragically apparent as it is to-

day by 1988.
Industry, too, has been reduced to chaos, despite the favouritism and protection lavished on it by post-colonial champions of modernsation and colonial than the sale. self-reliance. In more than half the African countries, manufacturing output was lower in 1980 than in 1970 and in some "extreme cases," the World Bank reports that only 25 to 30 per cent of installed industrial capacity is actually in use.

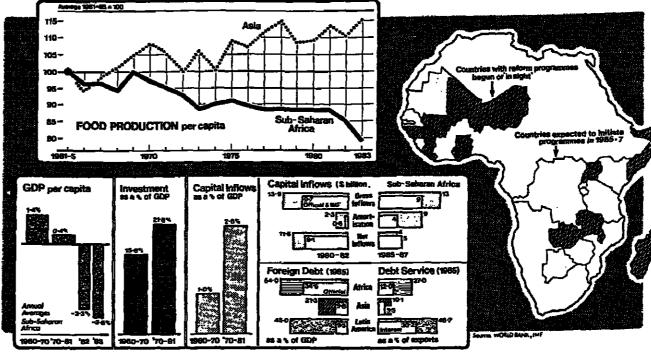
Meanwhile, the whole contin-ent has been sinking financially beneath a sea of foreign debt. Africa's debt service payments as a percent-age of exports have doubled to 27 per cent since 1977, and its foreign debt now stands at 54 per cent of Gross Domestic Product—a bigger debt burden in relation to GDP even than Latin America's.

Only a handful of African countries have managed to avoid the unwelcome embraces of the International Monetary Fund in the past five years. Few of these—Cameroon, Botswana and Swaziland—ca> 2 said to have escaped the IMF's tory financial performance. surveillance through satisfac-Only Nigeria has been strong

enough—so far—to stand up to its creditors without IMF backing while many other countries, unable or unwilling to come to terms with the IMF, have drifted helplessly into effective default.
Of those nations which did
seek IMF support, most, including Tanzania, Kenya and Zambia, have seen their lend-ing cancelled or suspended re-

Choice between austerity with the IMF's backng or bankruptcy without it. Most damning of all are the comparisons between Africa's decline in the past decade and the records of other Third World regions. In the 1960s, GNP per capita was growing at a respectable rate of about 13 per cent both in Africa and

CRISIS IN AFRICA



Wanted: a revolution in economic thought

By Anatole Kaletsky

South Asia, for example, and food production in both regions was roughly keeping pace with population growth. Prospects for many African countries seemed bright, whereas India, Bangladesh or eve nChina were singled out as doomed nations, unable ever to break out of the cycle of hunger, population and international pauperism.

Yet since 1970, most of Asia has managed to improve its lot. despite adversities of the global economic environment. Asian countries have raised their rates of economic expansion and reduced their population growth. Their food production has increased spectacularly since they were last hit by famines in the early 1970s.

What is more, Asian countries achieved these improvements despite levels of aid and invest-ment much lower than those enjoyed by Africa. Foreign aid per capita has been on average eight times higher in Africa than in India and one-third higher than in Bangladesh, despite the fact that incomes per head are lower in India than in 32 out of the 39 African countries, while Bangladesh comes second only to Chad in the list of the world's poorest countries. Even more peatedly for non-compliance with policy conditions.
recently Sudan. governments have fallen amidst bloody rioting in their efforts to avoid the control of the conditions.

The substantially between the 1960s and the 1970s, yet this did nothing to prevent the collapse of modulativity and economics. turbingly, Africa's aid and investment levels both increased of productivity and economic growth.

Clearly something in Africa had gone grievously amiss, well before the present drought and debt crisis; and in the past few alarm about their continent's tions. It is not just that agridisintegration.

Economic Commission for Africa warned that "the picture which emerges from the histori-cal trends is almost a night-mare." Since then the Organisation of African Unity, the African Development Bank and African bevelopment Bank and several summit conferences of African leaders, have issued statements which have sug-gested, at least in theory, the need for something approaching revolution in thought.

But putting this new consensus into practice will require far more, from Africans and their Western aid donors alike, than a theoretical conversion.

The new vision for Africa has as its gospels two World Bank reports. The first was edited in 1981 by Mr Elliot Berg, a peppery and uncompromising American professor, who immediately became one of the continent's prime hate figures as a result of his efforts. The second, published in August last year under the editorship of Mr Stanley Please, a mild-mannered Englishman who has just retired to Oxfordshire after a lifetime working for the Bank, gained acceptance almost immediately basic blueprint for Africa's future. The contrasting reception of the two reports reflects much more the tragic developments in Africa over the mental change in the Bank's analysis.

There are four interconnected strands in this analysis. African governments must greater willingness to rely on reverse the blases against agri-market forces, instead of

culture has been hobbled by cheap food imports, unrealistically low administered prices and government-controlled marketing systems for produce, seeds and fertilisers, which frequently act as back-door taxes on the farmers. Less obvious is the fact that the costs of almost any form of subsidies will ulti-mately fall on the rural population in countries where 72 per cent of the people, on average, work on the land and where progressive tax systems, which would enable governments to recoup the costs of subsidisa-tion from the richer urban dwellers, are either rudimentary or non-existent.

Secondly, governments must bring order into the management of public finances, particularly by rationalising invest-ment plans and, usually, by adopting IMF programmes to deal with their foreign borrowings. In many cases, a recording of public spending priorities require money to be diverted from investment to current spending contrary to the normal prescriptions of fiscal prudence in the indus-trialised world. "When the social and physical infrastructure is collapsing all around you, it makes sense to put money into using what you've got-to pay for medicines, road maintenance or even teachers' maintenance or even teachers salaries—instead of building extra hospitals, schools or highmaintenance or even teachers

This is not just a question of briding governments to pursue a policy of austerity which even a policy of austerity which even world would be

years even Africans, tradition-ally suspicious of Western have created by maintaining overvalued exchange rates, low mic life like agricultural mar-scriptions, have joined the world Bank in raising the sidies for their urban popula-

pointing to China and Hungary. The Reagan Administration, too, plays down the ideological significance of the market mechanism. "We're not trying to expose their whole economies to unbridled market forces," says one U.S. official. "In many cases, their fears of monopolisacases, their fears of monopolisation and exploitation by private merchants are quite understandable—they have small, under-developed economies with huge obstacles to effective compettition and, sometimes, racial tensions between the mass of the population and the merchant class. But we must persuade them that governments can keep their influence over key economic sectors by acting at the margins and by allowing competition between public and private sector operations, instead of trying to keep absolutely everything under their

direct control." In support of reforms like these, the World Bank wants Western governments, too, to do something: they must increase dramatically the flows of aid to those countries which undertake such "structural adjustments," and they must coordinate and discipline their own aid ministries to ensure that aid encourages reforms, instead of thwarting them by continuing to favour unnecessary capital spending for example.

in the Western world would be an unpopular diet-and in Finally, and most funda- Africa is an exceedingly mentally, they must show dangerous one," as a senior State Department official puts cated rural masses?
it. More importantly, he says: Until such questions can be it. More importantly, he says:
"We must demonstrate to
Africans that economic reform to say that the African nightleads to growth." And without more aid, there can be little hope for growth, even in coun-

tries which adopt all the World Bank's prescriptions, when their first priorities must be to service their foreign debts and rehabilitate a physical infra-structure which "is reverting to the Stone Age," in the words of one banker.

To provide some of the neces-sary money, the World Bank has raised \$1.25bn from governments outside the U.S. for a new Special Facility for Sub-Saharan Africa. The money will be spent over the next three years solely on countries which undertake specific programmes of reform and structural adjustment. The Reagan Administra-tion, meanwhile, has launched its own Economic Policy Initia-tive for Africa. This will channel \$500m of new aid over the next five years to countries selected broadly in line with the Bank's criteria.

The Bank has compiled a short-list of 12 countries which have already started reform programmes worthy of support from its Special Facility when programmes worth, of support from its Special Facility when this becomes operational in July. These include some of the nations which suffered the most disastrous falls in living standards in the 1970s, such as Ghana. Uganda, Zambia and Madagascar, as well as consistently better performers, like Malawi and Mali. A further nine countries including Zaire, Zimbabwe, Tanzania and Kenya, are listed by the Bank as "expected to initiate programmes in 1985-87." The U.S. has made its own selection of four countries—Zambia, Malawi, Mali and Rwanda—to benefit from the first year's expendi-

Mali and Rwanda—to benefit from the first year's expenditure of \$75m under the Economic Policy Initiative.
Yet, despite all this activity, it is still much too early to say that Africa has turned the corner. For the errors of the 1970s did not just arise by accident—they were reflections of powerful vested interests and political forces in both the political forces in both the African and the Western African and Atrican

subsidised their urban popula-tions and ended up oppressing their farmers not simply out of capriciousness or folly. In part at least, they have been serving the economic interests which dominate their fledgling countries' political structures.

The industrialised countries,

too, have had their own commercial motives for encouraging Africans to pour their aid into inappropriate capital-intensive investment More recently, they have cut aid drastically, just when it was most badly needed, in pur-suit of domestic budgetary priorities: the World Bank's new facility and the U.S. EPI put together, will fill less than one third of the gap between infilows of capital to Africa in 1980-82 and the World Bank's estimates of flows which are currently planned for 1985-87.

16) 16) 160)

Broak

intention

How likely are aid donors now to over-ride their budgetary constraints and make more money available? Will they subordinate their

perceived commercial interests and offer most of their aid untied to the purchase of expensive capital equipment, even if it is conditional on tough policy Most importantly, how long will African nations where all

political and economic power is concentrated in armed forces and small bureaucratic elites, stick to policies which favour the unrepresented and unedu-

A gilt-edged blueprint

SOMEWHAT DELAYED by the internal problems of the Stock ing its membership proposals, the final version of the Bank of England's blueprint for the new gilt-edged market has now been published. The changes compared with the draft version released last November are technical rather than substantial.

By implication the Bank has

given its blessing to the Stock Exchange's plans—though of course these still have to be ratified by the members themselves. Provided there are no upsets on that score in the June voting, the gilt-edged market will remain securely within the Stock Exchange The need for the gilt-edged

market to be confined in this way has never been entirely clear; the experience of the U.S. Treasury bond market, on which the new British system is closely modelled, would sug-cest otherwise. However, at a time when there is bound to be London's capital markets the Bank has understandably wished to preserve institutional continuity where possible.

Artificial separation

The same kind of motive applies to the bill market, where the Bank will continue to enforce a separation from bond trading activities.
This artificial separation has

led to criticism from both sides. Prospective gilt-edged market makers have complained at the nced for separate capitalisation of bill market operations, which will create organisational complications and reduce the overall return on capital through a reduction in flexibility. On the other hand, discount houses will have to join the Stock Exchange if they wish to become primary dealers

in the new gilt-edged market. But the division is not necessarily imposed for all time. The Bank's paper makes it clear in the first paragraph that the arrangements are subject to continuing review and modification in the light of experia probable development once on its hands.

the new structure is operating smoothly and the commercial desirability of such a change is accepted by the authorities.

Recent events in the U.S. have underlined the need for

caution in general and for tight regulation of stock borrowing in particular. Lack of super-vision of secondary firms in the U.S. engaged in repurchase agreements in government bonds has led to two major failures in quick succession. In London, intermediation in stock borrowing and lending will continue to be confined to regulated Stock closely regulated Stock Exchange money brokers. This type of activity is likely to increase in line with the expanded number of market makers, and the Bank is responding to suggestions that there might in some circumstances be a shortage of stock stances be a shortage of stock available for lending. The outcome might be legislative changes to encourage institutional sectors like building societies and pension funds to be more active in this area.

The development of the new process of the stock market new more sections.

gilt-edged market now moves into perhaps its most fascinating phase with the process of selection of the first list of primary market makers. Those firms that pass up this opportunity will have to wait until late 1987 before the door opens again, and the prestige attached to primary dealer status is bound to attract a

large entry.
The Bank's somewhat theatrical strategy is to publish the number of acceptable 1pplicants at the end of May, along with indications of the size of barrains in which they intend to deal, and then give the firms two weeks in which some of them could withdraw gracefully on the grounds, presumably, that competition would be greater than they had

imagined. If not enough applicants do the decent thing in such circumsionces the Bank might be forced to conduct its own culling operation. although the probability must be that it would err on the side of an overpopulation of market ence, and the eventual merging overpopulation of market of the bill and bond markets is makers rather than get blood

Changing tack at the Bank

Publication of the Bank of England's "white paper" on gilts should bring into the more discerning public eye the oncechunky figure of Eddie George. 46-year-old executive director of the Bank's home finance division.

For it was he who, with his head of gilts, Ian Plenderleith, was chiefly responsible for the paper, which suggests a new structure for government securities centring on an opening up of competition.

George is very much an official's official. Someone who knows him well recalls that, 10 years ago, when they first met, "he hardly said a word, and what he did say wasn't worth saying." But this tacitum tendency, it emerged, concealed not only a gift for friendship, once established, but a mind that was concerned with content not form.

Certainly, he is not afraid to speak his mind when he feels the need arise, and it may be for this reason that he has been singled out by Nigel Lawson at the Treasury as one of the two key figures at the Bank today. The same acquaintance who found him a man of few words a decade ago now perceives him as an important independent voice.

If George croaks a little these days as he weighs his words on gilts, interest rates, foreign exchange and monetary policy. it may, however, be less to do with the sheer volume of his opinions than with the fact that he is one of those forlorn figures who has tried and failed to give up smoking. He now smokes umpteen a day, I am told, and is none the happier about it for having lost weight in the process.

Sailing is his other passion. A replica of Australia II, the Antipodean winner of the 1983 Americas Cup, is a prominent feature of his office at the Bank. A British triumph next time round would bring tears to his

Men and Matters

Fading fortunes The U.S. mergers boom has havoc with 30-year-old Fortune 500 list of

the top American companies. In 1984, as the biggest wave of takeovers flooded through America's boardrooms, the magazine's index lost 19 corporations, the largest number to disappear in its history. It should come as no surprise

that in the era of T. Boone Pickens, the Texan takeover king, by far the biggest fall-out has occurred in the oil sector, where Gulf, Getty and Superior Oil have all been swallowed up by larger companies. Elsewhere, the axe fell haphazardly where, the are tell happazarury, lopping off, among others, the Continental Group in the forest products industry. Republic Steel, Carnation Foods and Norton Simon, once one of the great masters of takeover strategy itself.

Fortune hints at one of the reasons for this mayhem in its commentary on the performance of the "500". U.S. gross national product last year was 24 per cent up on its pre-recession level of 1981. Sales of the "500" companies, however, declined by about 1 per cent over the same period while profits rose by a mere 2.6 per cent. This is not the sort of record which leaves stockholders particularly happy -a point which Wall Street's new breed of predators has

tirelessly driven home.

Latest news from the takeover front is that the attacks on the old wealth of corporate America are continuing. Since the new Fortune list was compiled, Phillips Petroleum (number 17 last year) has had a narrow escape, while Crown Zellerbach (129), the forest in 1952.



price change—you win a Sinclair C5."

products group, has come under siege from Britain's James Goldsmith, and tyre group, Uniroyal (164), is being pur-sued by Carl Icahn, one of the profiteers from the Phillips affair.

Inflation rules The political parties in Bolivia

are rushing to name their candi-dates for the general elections to be held in June. One of the first hats in the ring is that of a powerful "moderate," Carlos Serrate Reich, former Bollvian ambassador to Moscow. He has been named presidential candidate by the MNR-Vanguardia, one of the factions of the political movement which pushed through a social revolution in South America's poorest nation

The bespectacled, bustling Reich runs a newspaper called Hoy in the commercial capital, La Paz. According to the paper's calculations, the price of flour rose by 50,500 per cent between November 1982 and last February, cooking oil went up in the same period by 111,458 per cent, and a visit to the doctor cost 157,745 per cent

conditions, with exports of everything but narcotics falling, and striking miners fling-ing about the odd stick of gellgnite as they parade through La Paz, it is a miracle that anyone wants to rule Bolivia.
Still, Reich can take a little

comfort from another statistic of inflation quoted by his paper.
The price of veal—now
4.500,000 pesos a kilogram—has
risen by under 50,000 per cent. And the West fears double-figure inflation.

Red sky

Peter Miller, the chairman of Lloyd's, who begins a tour of China next week, has opted to fly the flag for Britain. He will tour the People's Republic in tour the People's Republic in a leased masterpiece of British aviation technology.

Unfortunately, the aircraft in question will not be of recent construction. Indeed, it was sold to the Chinexe airforce a decade ago. It is a Trident—one of those workhorses of the air which are now being phased.

air which are now being phased out here in deference to age and environmental restrictions Last month, Lord Young and a UK trade mission wender their way round China by the civil airline, CAAC. The Prime Minister-no stranger ot gaffer in the Far East-had wanted an all-new British Aerospace BAe 146 airliner of be used, but British Aerospace had none to lend, and the Defence Ministry baulked at the cost: £200,000.

Ab well. In another 10

years or so, we can always sell them second-hand.

Observer



Financial Times Monday April 15 1985

THE ACID TEST of the That-cher Government's sincerity in pursuing supply side policies to help people find their own jobs will be with us very shortly. It arises on an issue where, for once, free market economics coincides with the Government's own policy instincts; where the arguments for action are overwhelming, and the number of potential sufferers extremely small, if the reform is carried

Issed.

file ma

Eitelli

3355 W

il agon

out competently.

The key is to be found in a motion on rent controls moved by Peter Hordern, a Conserva-tive MP, on March 8 and supported in a personal capacity by Peter Lilley, the Chancellor's Parliamentary Private Secretary. Mr Hordern made clear that he expected protection for existing tenancies to continue and that he had in mind only decontrol of new tenancies, a road along which Germany and France have already travelled. It is with this possibility in mind that Minis-ters are engaged in a review of the private rented sector.

The withering of the private rented sector is second only to rented sector is second only to over-rigid labour markers as a cause of high unemployment. A young person moving from a high unemployment region like Liverpool to a more prosperous area may well not be able to afford to buy a new house, or may rightly hestiate to the himself down straight away. He will have almost no chance of a council house in view of the long waiting lists.

The most natural form of

The most natural form of accommodation for him would be private sector renting. Yet, because of rent controls private landlords do not have any incentive to provide such accommodation. On the contrary, the landlord has every inducement to sell rented if he property for owner occupation per as soon as it becomes vacant. The stock of private rented dwellings is less than 2m and is shrinking by at least 70,000

Private sector lets have fallen from about 90 per cent of all accommodation in 1915, when rent control was imposed, to 45 per cent in 1950 and less than 10 per cent today. (In the U.S., it is still well over 30 per cent, in Switzerland over 60 per cent.

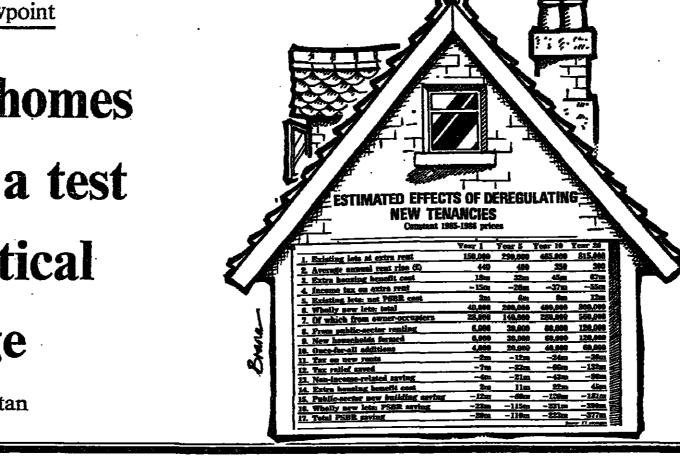
free market levels, other wastes proliferate. One example is under - occupation, When smaller accommodation. Land-emphatically not cit lords, on the other hand, are costs as an obstacle. tempted to leave rented property in disrepair and dilapidation.

Because there are now so few Conservatives will be associated new lets more and more people once more with Rachmanism, now depend on bed and breakharassment of tenants by fast accommodation, or are landlords, and with bad placed in hostels of varying memories of the last major kinds, or simply sleep rough.
All these abuses have increased
manifold since the Labour
Government atavistically extended control to furnished accommodation in 1974.

Economic Viewpoint

More homes to let: a test of political courage

By Samuel Brittan



A graphic illustration of the also be accompanied by mea-effects of rent control was given sures to give existing tenants in a recent letter to the Stan-more protection against harassdard newspaper by a reader who would have been prepared to spend £5,000 to convert some rooms into a self-contained flat if he could have charged £30 per week. The interested tenants were a couple forced to live in bed and breakfast accommodation costing them £40 a week each. So they too would have gained. But as the land-lord could not expect to recover more than £13 a week under a regulated "fair rent," the whole project had to be abandoned. Some Government faint-hearts have put forward as a pretext for inaction largely imaginary PSBR costs of decontrol of new tenancies, arising from greater

Because rents are so far below eligibility to housing benefit. On any assumptions, rent decontrol is about the cheapest form of job creation imaginunder occupation. When form of job creation imagin-children grow up, parents find able. Treasury Ministers, who it does not pay to leave for favour housing mobility, are emphatically not citing PSBR

The real worry of Cabinet faint-hearts is, of course, different. It is the fear that the decontrol Act of 1957. The big difference, however, is that while the 1957 Act applied to sitting tenants, new legislation

Deregulated new tenants would be protected from being thrown out on the street in the event of a failure to agree a new review by the Protection from Eviction Act of 1977. An additional safeguard might be for new tenancies to be fixed for agreed periods between landlord and tenants, instead of the indefinite arangements The other immobiliste argument is that landlords would

Labour Government would re-impose controls. It is best to concede that the main benefits would come after an electionalthough it would be wise to have any new Act in operation for a year before, just to disabuse the prophets of horror. It would also help if the SDP could avoid being as conservative and between tive as Labour and, however many disapproving noises it made, avoided outright repeal commitments and concentrated on the need for a more balanced overall housing policy. At the end of the day, however, the better any new legislation is seen to work, the less the chance of repeal by a new Parliament,

The accompanying table is an entirely unofficial attempt to estimate some of the principal today would apply only to new consequences of deregulating tenancies. It could and should new tenancies,

by about 2 per cent per annum until it has increased by one-The starting point is the 1981 The starting point is the 1981 Labour Force survey showing some 300,000 private sector lets expiring each year. This figure needs to be reduced because of "loophole lets" (eg. to com-panies) or lets on which hous-ing benefit is not claimed. The half. This gives 40,000 new lets per annum of which 70 per cent might be in place of owner occupation, 15 per cent in place of council tenancies, and 15 per cent arising from newly number of new tenancies at higher rent on which benefit would be paid has, therefore, been reduced to 150,000. But not a great deal hangs on this stimulated household forma-tions. Another 4,000 new lets per annum might come from previously vacant properties, until 60,000 of these were reduction, as the benefit cost would be substantially offset by

absorbed.
The following lines show resulting Exchequer gains: from taxes on new rents, savings in mortgage interest relief and from savings in, for instance, improvement grants, which are less in the privately rented sec-

tor.

The final result is a modest PSBR saving of just over £20m in the first year, rising to over £200m per annum in the tenth year and to nearly £400m in the

year and to nearly £400m in the 20th. The real present value of the savings discounted over 50 years may be between £5bn and £9bn (at 2½ to 5 per cent real discount rates).

Whitehall's estimates probably differ from the table by showing a small PSBR cost in the early years. More pessimistic assumptions might be made, for instance, on initial rent increases, and on income tax gains. There might be political obstacles to reduced council house building, or to the house building, or to the changes in housing benefit recommended by the recent inquiry.

On the other hand, the table is itself very cautious on many key assumptions, above all the number of new lets once it is clear that deregulation is here to stay for some while. Even on the most pessimistic

Even on the most pessimistic assumptions, the initial PSBR cost in the early years couldd hardly be more than £30m to £40m per annum. This is 1 per cent, not of the PSBR, but of the estimated error in forecasting the PSBR. It would be recovered in increased tax revenues if the national income rose once-for-all by 0.03 per cent as a result of greater mobility and more jobs.

But even without counting on any GDP gain whatever, almost any GDF gain whatever, amost no adjustments could prevent the PSBR effect becoming favourable after a very few years and having a very large present value. Anyone who cites the PSBR effects as a reason for not deregulating power. reason for not deregulating new tenancies is thus using it as a cover for lack of political nerve.

A proper housing policy would not stop at private tenancies, but re-examine the future of council houses and of mortgage interest relief. The latter con-cession spills over into consumer credit and raises interest rates generally. But only the Grand Inquisitor would use the lack of progress on these other fronts to hold up a measure which could bring unemployed people to places where jobs are to be found.

Lombard

Let's have less information

By Michael Prowse

ARE dominated by economic statisbreathless for monthly money supply figures—data the Bank of England began to collect only in 1963. Businessmen's confidence is constantly buffeted of modern economies reflect a by endlessly-revised figures for surplus of information in the by endlessly-revised figures for investment, corporate profits and the balance of payments. Everybody has learned to fret over the inflation, earnings and unemployment statistics. Gross domestic product a flaved domestic product, a flawed measure even of economic activity, is held in awe and regarded by many as a measure of the nation's overall well-

Does this plethora of statistics Does this plethora of statistics do anything to improve the economy's efficiency? Suppose an indefinite strike at the Central Statistical Office and other data collection units allowed Mr Nigel Lawson, the Chancellor, honestly to disown all knowledge of inflation and Chancellor, honestly to disown all knowledge of inflation and the money supply and Mr Tom King at Employment to confess to total ignorance of national trends in earnings and unemployment. Would the economy suffer badly? The answer would not be straightforward: since the old statistics would no longer exist they would no longer exist, they could hardly be used to gauge the impact of their disappear-ance. Less data, however, would not necessarily entail a less healthy economy.

Most economists would probably argue that such an "information strike" would damage more than their own profession. Information, they might claim, is a scarce but valuable commodity and the more that is available the better for everybody. Such an off-the-cuff response should be treated with caution. Official data gathering is a modern phenomenon. Economic statis-tics were virtually non-existent in the late 19th contury yet

in the late 19th century yet British entrepreneurs enjoyed British entrepreneurs enjoyed their heday.

Economic statistics may be valuable even if capitalist economies have performed well in their absence but why is maggreeonomic data within make fewer tout pay—feasible and this could only be beneficial. Why not let the market decide what information is needed? Private firms should not be prevented from invention and then

extraordinarily profit. Much of the data about economies accumulated by offi-Financial markets wait cial agencies may be irrelevant to business and commerce: some may even be inimical to their interests. Could some of the instability

> wrong places? Decisions may wrong places: Decisions may be distorted as much by excessive as by inadequate knowledge. Think how easily companies might achieve sensible pay awards if average earnings data were not such a preoccupation: the focus could shift from "going rate" considerations to more relevant factors such as local competifactors such as local competi-tive pressures. Think how financial markets might calm down if they were offered less officially-generated macro information of dubious relevance. whether about money supply, inflation or the balance of payments.

> If the Government ceased to publish economic statistics, the information which remained served a genuine purpose in a market economy. The exchange rate, interest rates and stockmarket valuations, for example, would survive because these prices, determined by thousands of participants in real markets, are useful. Companies would shareholders and others need the information, but spurious official data on aggregate corporate profits would vanish. And although money supply data would not be collected, the Bank of England could still hear track described its keep track and control of its own liabilities—cash in circulation and the reserves of com-mercial banks—and thus

regulate the monetary base.

The modern obsession with macroeconomic statistics seems to reflect an unhealthy and pervasive curiousity about other people's affairs. Less official data would make fewer commacroeconomic data gathering almost invariably a public-sector monopoly? If a market economy needs information of whatever sort, private companies will surely have an incentive to collect and distribute it for nrms should not be prevented from inventing and then monopoly? If a market economy economic averages and aggregates, but taxpayers should not surely have an incentive to collect and distribute it for potentially damaging recomments.

Broadening the tax base

Abbey National Building

Society
Sir,—The idea of Dick Taverne's (April 10) to exempt all savings from taxation, and all savings from taxaton, and instead to tax their realisation as income, is admirable and simple. One almost hopes readers will find a multitude of defects to ensure a fuller air-

ing.
He is too discreet to mention
National withdrawals from National Savings. But scarcely a need, the Government will have thought of it. Another exemption? Peter G. Birch. Abbey House, Baker Street, NW1.

The Chancellor's intention?

From Mr I. MacKenzie, Sir,—With the forthcoming earnings related "banding" of contributions we appear to have invented an anomaly.

On personal income tax one is taxed on a cumulative basis according to the respective bands. National Insurance contribu-National Insurance contribu-tions will be levied by a differ-ent method—a flat rate on earn-ings irrespective of the "bands." For example on person A, earn-ing £130 per week, both em-ployer and employee will pay 9 per cent that is £11.50. On person B, earning £129.90, the rate is 7 per cent that is £9.09. There is no encouragement for any marginal increase in earnany marginal increase in earnings close to the "break point."
Indeed one can foresee peculiar manoeuvres, on the part of employers and employees, designed

to avoid paying bigher rates on a regular basis. If we pursue this to a logical conclusion using the DHSS scale with the same earnings of "A." £130, the contributions are £11.50 each. Using the "band-ing method" that is 5 per cent on £35.50 to £55 per week, £2.75. 7 per cent on £55 to £90, £2.45 and 9 per cent on £90 to £130, £3.60, the total is £8.80 a saving of 25 per cent. This cannot be what Nigel

Lawson really means? Ian P. C. MacKenzie. Woodlands. Barrhill Road, Gourock, Scotland.

The nature of an audit

From Mr J. Smurthwaite Sir,—For too long, the accountancy profession has hidden it's collective head in the sand. Any business has to satisfy a genuine commercial need or die. The accountancy profession is no different to any other business in this respect, but seems most reluctant to accept it. Most practising accountants still seem practising accountants still seem academia.

One of the most practical regions would result in business (Sir) Michael Wilford, ments as some form of benefice ways in which the compilers granted them by the Companies of published accounts can help Act 1948 and are surprised to shareholders (and, I suspect, is as near to London as Man- 43-46, King William Street, EC4.

Letters to the Editor

being. Desmond Goch,

Airline

travel

south east.

4. Paddock Wood, Harpenden, Heris-

From Mr H. Patchett
Sir,—I am at present in Indonesia where I have just read the survey on regional airports (March 25) and I must contest some of the statements, which

some of me statements, which bias the argument towards the south east and play down the role of Manchester as an inter-national airport.

national airport.

I am well qualified to comment having clocked up more than 1.25m miles in the past 20 years and visited more than 120

figures) gives a total of over 18m (6m contributed by Man-chester alone). The BAA survey says "... only a small proportion—8.2m—of the total

of 45.4m flow into London from the regions. What it omitted to state is that this

means that 12m from the regions don't fly into London.

find that even after having con- | many financial analysts) is to ducted the rites of their office in prescribed form, some of their parishloners are unsporting enough to complain.

There is a real economic need

for someone to attach a seal of approval to financial statements.

ASC should go for the time approval to financial statements and thus to add credibility to them. For this service a proper fee should be paid. The concomitant is that those who have been misled by the credibility thus accorded to the statements should be recompensed (properly and in a dignified manner). This is little different to product liability insurance and in commercial terms it would be sensible to view it as such. be sensible to view it as such.
The whole nature of an audit

The whole nature of an audit should perhaps be re-thought by the accountancy profession to more nearly accord with the commercial demands now being made. Instead of an audit being the work necessary before an auditor can form an opinion (expressed in words too arcanum for general understanding), perhaps it should become the work done by an auditor to reduce his personal risks to an acceptable level, and thus make a fair profit from the fee charged. charged. John Smurthwaite.

Lymbrook, Marlow Common, Bucks.

Practical

accounting From Mr D. Goch.

Sir.—Reading the letter from the chairman of the Accounting Standards Committee (April 2), one cannot help but express a sneaking admiration for the persistence with which he and his committee seek to attain the unartainable. Few shareholders are suffi-ciently familiar with the finer

points of accounting presentation to do more than compre-hend the salient points in the halance sheet and profit and stand the Byzantine mechanics of current cost accounting. If Manchester handles 6m Gearing adjustments and mone-tary working capital adjust-ments are strictly for the birds in the context of financial com-munications to shareholders. As for managers, they take account of inflation in other ways when they are making business deci-sions and they have little need

to listen to the siren-calls from

This may very well be true but these are probably first time travellers who are unaware of alternative routes. provide supplementary five-years sales turnover figures which have been indexed to the RPI so as to give a broad indication of ex-inflation trends.

Harry Patchett. 26, Hartley Road, Cheshire.

From the General Manager,

months in advance of our launch. The facilities are available to other service providers, whether from British Telecom

airports around the world. I can assure you that Manchester compares very favourably with many of the major airports abroad and it is infinitely better than some.

Back to the survey. The chart on page 11 was prepared by British Airports Authority which has no financial interest in Manchester and is obviously trying hard to make out a case for further expenditure in the Adding up the number of passengers handled per year by all the regional airports (your

Into the unknown

An average of the column of percentages (same chart) is about 30, which checks out the about 30, which checks out the market they know. And the market they know. And this problem is a bit of a national disease." Coincident-

attempt to mislead.

It is also mischievous to assert that any attempt to foreibly divert international traffic away from London to the regions would result in business

The substitute of their hand at the Japanese market will be encouraged to do so now. The rewards could be great and there is a wealth of good advice available (Sir) Michael Wilford, Greber McCallum.

chester there is still the English Channel to be crossed. If you are thinking of the 10 per cent (from the chart) who use Heathrow as a transfer point I ioubt if Stansted would i acceptable alternative. The chart also shows that only 2.3 out of every 100 passengers arriving in London want to go to the north west.

income and corporation tax on the extra rents. After 20 years about half the existing con-trolled tenancies might be

eliminated, and after 50 years the whole lot.

London averaged in 1984 just over £1,100 per annum for unfurnished dwellings and nearly £1,600 for furnished. Outside

London they were £775 and £1,150 respectively. The initial

rent rise on new tenancies could range from 50 to 100 per cent

in London to near zero in some areas where market forces would not allow an increase. An average increase of £440 has been written in for the

whole country. This figure (measured at constant prices)

will clearly decline as supply

The more interesting lower half of the table makes an estimate of the new lets, which

greater freedom would stimu-late. The total rented stock is

assumed conservatively to rise

Officially registered rents in

No seasoned traveller would route via London to Manchester from choice.

Premium 'phone services

Supercall
Sir.—Mr Tayler (April 10) on
Citycall makes a number of

errors.

Citycall is one of a number of premium telephone services provided by Supercall, a new business in British Telecom Enterprises. It is a value-added service, in that it provides constantly updated financial information to telephone callers.

Mr Tayler asks where our eight-digit number, 0066 0066, and our network facilities come from. We ordered them from British Telecom London many months in advance of our

whether from British Telecom or elsewhere.
Mr Tayler is quite wrong to say that the service is provided by British Telecom London. Supercall operates as an arm's length profit centre, and is a customer of British Telecom London. Our services are currently confined to London, but we aim to expand our coverage to other areas.

to other areas. Kieran Levis. 1-9, Downham Road, N1.

From the President and Chairman, Japan Association |
Sir,—You quote (April 10)
Derek Kingsbury of Fairey
Holdings as saying: "It is sad to see people limited by their own very excellent experience

ally, Mr Nakasone appeals to the Japanese people to buy more foreign products. We hope that British exporters who have not yet



Go Straight To

WALL STREET JOURNAL.

EVERY BUSINESS DAY, ALL OVER EUROPE.



Terry Byland on Wall Street

Tremors fail to unsettle

THE LATEST tremors in the U.S. financial markets after the collapse of another of the smaller federal bond trading firms have done little to shake Wall Street's confidence in the financial sector. That contrasts with the mood in European and other world financial centres, where recurrent hints of "more trouble in the U.S. financial system" have helped unsettle the U.S. dollar.

To take Wall Street's most obvious mood indicator, stocks of the main banks have been moving strongly into the quarterly reporting season. Last week saw J. P. Morgan leading the pack as the leading banks began to report the expected increases in first-quarter earnings.

Nor is the brokerage community about to change its stance on bank stocks. Mr Ron Mandle, who watches the sector for Paine Webber, spoke for the street when he told a recent seminar: "We like the 1985 outlook for money centre bank stocks." Even the upsets at some Texan banks have been brushed aside by investors in the leading banking

The latest difficulties among bond trading firms are on a much smaller scale than those of Drysdale Securities, or of the problem loans that surfaced at Continental Illinois - or even of the vast sums still at risk in Latin Ameri-

Even better for stock prices has been the noticeable easing of Wall Street tensions over the Latin American debts. Time of course will tell, but the hope now is that the Latin debts have been taken in hand by all parties con-cerned. "We are probably half-way through a five-year workout," says Mr Mandle: "In the remaining 2½ years or so, the ups and downs will continue."

Meanwhile, the money-centre stocks continue to trade cheaply against the industrial market. In part that represents the scope

Stock Price (5) P/e

Chase Citicorp Chemical Man. Hanover J. P. Morgan	54% 44% 39% 37% 48%	6 7 6 5 9
S & P 400	199.95	11.13
for recovery from	n the mi	ddle of

last summer when the sector fell almost out of sight. Now that firmer oil prices and a weaker dollar are helping domestic and international creditors of the U.S. banks, a fresh dip in their funding costs would benefit earnings quickly. The next six months will show which is the more justified - Wall Street's confidence or Europe's doubts.

Bevill's losses are expected to be only about \$200m and the firm was clearly numbered among the 100 or so small, second-line traders in federal bonds. The losses will be borne by the smaller savings and loan corporations, minor financial traders, and the lesser known municipal pension schemes. The big banks were probably unscathed.

Wall Street has welcomed the comments of Mr Preston Martin, vice-chairman at the Federal Reserve, that the recent upsets have vindicated the soundness of the U.S. financial system. The difficulties raised by the Bevill and ESM failures are serious, but they concern the regulation of financial markets rather than banking profits and losses.

In doing so, Wall Street may be overlooking too much. The losses at ESM, together with the shock delivered to the Ohio thrift customers, might yet justify European worries over the system especially if there are further fai-lures. Serious losses in the federal bond market would soon find their way back to banking balance sheets and stock prices.

Wall Street brokers have strong arguments for continuing to recommend bank stocks to clients. The stocks still rate cheaply, despite their advance at the end of last year.

Last week's sudden plunge in short-term market rates opens up the chances of further gains for the banks, which profited significantly when rates fell in December and they were able to delay reducing their own primes.

Brokerage analysts continue to favour the money-centre banks rather than the regionals, which have been upset by the problems at some of the Texan banks. That represents a clear contrast with the views held 12 months ago. Gains of 10 to 15 per cent in firstquarter eurnings are predicted for the leaders and borne out by the results disclosed to date. Second and third-quarter earnings should also look good.

UK MAINTAINS CAUTIOUS APPROACH TO INTEREST-RATE CUTS

Markets keep close watch on £

BY PHILIP STEPHENS IN LONDON

THE UK Government and Britain's small cut in interest rates.

After Friday's 1/2-point cut in base rates by Barclays and Midland banks, the Bank of England indicat- Banks, whose 13 per cent base rates ed firmly that it was not prepared are now above the 12% per cent to see a rapid fall in the general level of borrowing costs.

In addition, markets will be watching closely this week to see how the dollar reacts to a series of U.S. economic indicators, including revised GNP figures, which are due to be published this week.

The pound's strong gains against both a weakening dollar and against European currencies, however, have rekindled optimism in financial markets that if present trends continue there could be room for another modest reduction. time, however, suggesting that neither will feel under immediate pressure to make a firm decision.

ing UK clearing banks, is consider-

ing swapping its interest in the New

York-based European American

Bank for an enlarged stake in Euro-

pean Banking Group, the UK-Bel-

gian bank headquartered in Lon-

Both EAB and EBG are owned by

the Ebic consortium of seven Euro-pean banks, of which Midland is the

When it acquired Crocker Nation-

al Bank of California in 1981, Mid-

land was told by the Federal Re-

serve Board to reduce its 20 per

cent stake in EAB to no more than 5

Midland has been negotiating with other members of the Ebic

group to sell its interest, but that

BY ALEXANDER NICOLL IN LONDON

world's futures and options ex-

changes might result from a study

of clearing systems planned to start next month involving two London bodies and a Chicago-based clear-

The Options Clearing Corpora-

tion (OCC), which clears options

transactions on several U.S. ex-

changes, is to join the London In-

ternational Financial Futures Ex-

change (Liffe) and the London-

based International Commodities

Clearing House (ICCH) in the

Liffe and ICCH have already an-

nounced plans to develop a clearing

system for both options and futures

trading that would be cheaper,

more efficient and more technologi-

cally advanced than the present

Action-packed

Asian tour

by Thatcher

Continued from Page 1

feelings are reciprocal, all was sweetness and light, at least in

In London, however, Mr Gerald

Kaufman, the opposition home af-

fairs spokesman, went into an Eas-ter rage. Little matter that the

Prime Minister was expressing

opinions which everybody knew she held long ago, the opportunity

Mr Kaufman said that Mrs

Thatcher had become "the enemy

abroad," thus hugely entertaining

party accompanying the Prime Minister.

was too good to miss.

UK member.

The pound has risen against all leading commercial banks will be leading currencies but that is partly watching sterling's performance on because high UK interest rates foreigh exchange markets to decide have attracted a relatively higher whether there is scope for a further proportion of the funds moving out of dollar into sterling than, for example, into D-Marks.

National Westminster and Lloyds indicated that they would be reviewing the situation daily. Both banks are thought to be re-

luctant to move their rates by only a ¼ percentage point, raising speculation in the City of London that if the pound continues to rise they might "leapfrog" to 12½ per cent. The borrowing charges of the ma-jor banks have in the past been out of alignment for several weeks at a

UK clearing bank considers

BY DAVID LASCELLES, BANKING CORRESPONDENT, IN LONDON

swap for £35m stake in EAB

MID! AND BANK, one of the lead- had to seek a 12-month extension of were continuing and that severa

the Fed's deadline to next October.

ever, Midland may end up exchang-

ing it for some of the interest of oth-

er Ebic members in the European Banking Group (EBG), of which Midland already owns 14 per cent.

According to its latest annual re-

port, Midland carries its EAB stake

in its books at £35m. Because EAB

is much larger than EBG, the ex-

change would give Midland a size-

able interest in EBG and make it

the dominant shareholder with

more than a third of the equity. EBG recently reported that its

A Midland official would not com-

ment on the course of the negotia-

shareholders' equity was \$139m.

has not proved easy and Midland tions, except to confirm that they from four European countries.

U.S. group joins study of new

NEW form of link between the system. They plan to introduce it for associations between clearing

Two OCC representatives will

join their working party. If a link between OCC's computers and the

London system were to result, it might enable market participants

to, for example, net out their Liffe positions against those in the U.S.,

and to carry over London positions

So far, links between markets

have taken the form of direct asso-

ciations between exchanges - most

notably between the Singapore In-

ternational Monetary Exchange

and the Chicago Mercantile Ex-

The Simex move, although offer-

ing the prospect of round-the-world

trading in futures, has generally been viewed as disappointing. Liffe

believes there may be greater scope

Continued from Page 1

vidual countries' economic policies

and their effect on exchange rates. The EEC sees this increased "sur-

reillance" by the IMF as an impor-tant lever in persuading the U.S. to take more notice of their anxiety about its deficits, and the effects of

high interest rates and an over-val-

ued dollar on the rest of the world.

It is clear, however, that there

vill be no comparable consensus on

the other two issues on the G10

The need to boost international li-

quidity by a large allocation of Spe-cial Drawing Rights (SDRs), the

IMF's own reserve currency, and

options in clearing systems

Instead of selling the stake, how-

Despite sterling's remarkable turnround since last month - it is now at its highest level since August 1984 - the Government is maintaining an extremely cautious approach to bas rate cuts.

Its reaction to market developments over the last few weeks indicates that while it will occasionally accede to pressure for lower rates it will resist too rapid a fall.

Part of the explanation is prob-ably tactical. Last year the Treasury and the Bank acquired a reputation in financial markets for pushing interest rates down at every op-portunity, which undermined confidence in their anti-inflation strate-

Now the authorities want to ensure that if rates do come down then it is seen clearly as a response kets rather than as Government-in-

options were being considered.

The other members of the Ebic

group are Amro Bank, Banca Com-

merciale Italiana, Creditanstalt-Bankverein, Deutsche Bank, So-

ciété Générale de Banque (Bel-

gium) and Société Générale

(France). Many are reluctant to

raise their stake in EAB because

they already have sizeable opera-

tions of their own in the U.S. EAB

has also lost heavily recently. EBG is profitable, but earnings

have been depressed by the need to

make large provisions against pos-

sible loan losses. Today, the bank

share dealing service and will make

markets in stocks of multinational

"We think that there will be dif-ferent types of link," Mr Michael Jenkins, Liffe chief executive, said.

The clearing houses have to be

Trading in options, which provide

the right to buy or sell an underly-ing instrument at a fixed price with-

in a specified period, has been in-

creasing sharply in the past year, especially in Chicago and Philadel-phia. Liffe plans to introduce its

first two options contracts in June.

handles only options, it plans to expand into futures. U.S. exchanges,

however, already have a large num-

ber of clearing houses compared

with London. The ICCH clears

many London markets and some

The ministers also gave their

blessing to a package of measures to encourage the official use of the

European Currency Unit (Ecu), al-

ready approved by the Ten central

This will allow non-EEC central

banks to use the Ecu as part of their

reserves; it will provide for higher

payable on oficial Ecu holdings; and

it will relax the rules for the use of

Ecus for currency interventions

foreign exchanges.

bank governors.

Cautious EEC reaction

A more vigorous and more public policing role for the Fund over indiations in exchange rates.

to U.S. call for talks

Although the OCC at present

able to talk to one another."

financial and chemical companies

The Bank is also sensitive to any possible change of sentiment on the foreign exchange markets if interest rates fall rapidly - after all, a key factor underpinning sterling at present is the high level of Britain's rates relative to those in the rest of

Finally it wants borrowing costs to stay relatively high - perhaps 12 per cent or above - until the broad measure of money supply, sterling M3, is under much firmer control. Figures released last week showed that sterling M3 was at the very top of its 6 to 10 per cent target

range for 1984-85 and above the 5 to 9 per cent range set for 1985-86.
Although the narrow monetary aggregate. Mo, is well within its prescribed range, the authorities are aware that if sterling did weakments in the money mar- en, the financial markets would focus much more closely on sterling

Date set for CGE deal with Thomson

By David Marsh in Paris

FRANCE's nationalised Compagnic Générale d'Electricité group is to take over the civil telecom tions interests of the Thomson electronics concern from July 1, 18 months earlier than originally

agreed.

The move, which follows wide ranging shake ups in the two stateowned groups since their landmark owned groups since their institution of exchange of electronics assets was agreed in September 1983, has been decided to help resolve financial and industrial problems still surrounding the merger.

The decision, announced by CGE, reflects a Government desire to clear up ambiguities in the merger. It will give CGE full control from July over a holding company, Thomson-Telécommunications, set up after the 1983 accord to group important parts of Thomson's pub-lic and private telephone business as well as other specialised companies. CGE will exert control through its subsidiary CTT-Alcatel.

CGE already has management control over the company. But u now it has had only a 12 per cent financial stake, with 40 per cent owned by Thomson and 48 per cent

owned by the state.

CGE was scheduled to take over full control only on January 1 1987. But the move has been speeded up by the need to define clear financial responsibility for the Thomson companies, which are still heavily

The decision is likely to involve further injections of government fi-nance, probably through the Post and Telecommunications Ministry. It will create a grouping under CGE's control of the world's fifth largest telephone concern, with a turnover last year of FFr 25bn.

But pressing industrial problem

Bevill, Bresler trustee finds \$5bn in deals Continued from Page 1

was putting together a plan to raise the new capital. Elsewhere, the Imperial Savings Association of San Diego, Califor-

nia, raised its estimate of potential losses resulting from the BBS fail-ure to \$4.1m from \$2.1m. Both Imperial and Worthen had

engaged in complex repurchase and reverse-repurchase agreements with BBS under which they either borrowed or loaned the securities group bonds as collateral for short-Separately another savings bank

within the European Monetary System, even when currencies are not tion of Florida, reported a \$7m out-

actually at their floor or ceiling. Big purse for fight

Continued from Page 1

spectators actually pay for the tickets themselves. They are bought by
the casinos and handed out to their
most prized high rollers: there is

"The sums are so big, he says, bemost prized high rollers: there is little, apparently, that hypes up a cause this contest has a touch of gambler more than the excitement magic about it - one of the rare of watching a couple of pugilists best each other into the ground.

The casinos, indeed, covet this business so much that promoters are treated like royalty when they bring in a catch like the bald-pated "Marvellous" Marvin.

Mr Arum will not put a figure on his likely profits from the bout, remarking sagely that "you don't go the pile make a mint, and those at to the bank with records." But Las the bottom make nothing.

bling business. Very few of the Vegas calculations put net receipts

bouts which pits the two best fighters in the world at a given time against each other. No matter that they are not heavyweights, they are the best "and they have destroyed everyone else." As the manager of Sugar" Ray Leonard recently remarked, boxing is "capitalism at its best and worst" - those at the top of

Liber inde on go ,- A. Helsen, Liner - At - Are - 1 1

THE LEX COLUMN A decent rate for the job

Britain's top public companies show that the corporate sector is not at a complete loss for ideas about how to spend its cash surplus. Tucked away behind the pictures and reservation. graphs lie increases in directors' remuneration which often go far beyond what shareholders have learnt to expect. Last week Sir Kenneth Corfield, the chairman of STC,

ceived whopping pay rises in 1984. It is the size of the increases, rather than the absolute level of pay, which has caused eyebrows to arch. Indeed, by international standards, senior British executives are still badly rewarded. Mr John Har-vey-Jones of ICI received an invey-jones of 101 received an in-crease of 63 per cent last year. But his 1963 salary was in a different league altogether from the pay re-ceived by his opposite numbers in the U.S. chemical industry. The chairman of Du Pont received \$960,000 in that year, while the chairman of Monsanto picked up \$950,000 in the eight months before

his retirement. The £171,000 paid to

Mr Harvey Jones left him a com-

parative pamper and last year's rise will by no means make up the gap.

oined his counterparts at ICI and

BP on the list of executives who re-

Performance

It is no accident that Britain's best-paid manager, Mr Richard Giordano of BOC, is an American whose salary is assessed partly by reference to what he could expect to make across the Atlantic. The gap between U.S. and British pay norms reflects an historic difference in approach towards executive remuneration. Whereas American executives have long been re-warded for performance, their British counterparts have generally been paid whatever was considered the going rate for the job.

Increasingly, however, British companies are adopting the U.S. approach - the Harvey-Jones pay-ment incorporated a large and thorment incorporated a large and thoroughly justified bonus element. Executives in most large British companies now receive performance-related bonuses in addition to share

In discussive would also help to avoid the competitive leap-frogging show considerable firmness of purpose in most large British companies now receive performance-related bonuses in addition to share

In discussive would also help to avoid the competitive leap-frogging show considerable firmness of purpose if fair play is to be maintained. U.S. boardroom. It is less likely that is not a quality, unfortunately, for which they have been collective directions with need to show the part of the competitive leap-frogging show considerable firmness of purpose if fair play is to be maintained. U.S. boardroom. It is less likely that is not a quality, unfortunately, for which they have been collective directions with need to show the competitive leap-frogging show considerable firmness of purpose if fair play is to be maintained. U.S. boardroom it is less likely that is not a quality, unfortunately, for which they have been collective directions with the competitive leap-frogging show considerable firmness of purpose if fair play is to be maintained. U.S. boardroom it is less likely that is not a quality, unfortunately, for which they have been collective.

partly because of the way in which Not least important, the salary init has rewarded its managers - but it should not be accepted without souring relations with the trade

strong performance, then it is only reasonable that penalties should be imposed for the opposite. Yet there low pay increase had as its arithmetic consequence a high profit-releast, the system cuts both ways. A falling salary is a rare sight. Moreleads to a hostile takeover. And non-executive directors have in general done a lamentable job of replacing poor managers. If the U.S. approach is adopted wholesale in the U.S. approach is adopted to U.S. approac the event that underperformance the UK, British executives stand to enjoy what looks remarkably like Non-executives the best of both worlds.

If performance payments become commonplace, the size of the bonus sible increases rests squarely with only last week GKN was forced by

Shareholders are more likely to take a charitable view of bonus pay- from retirement, additional contriments if they are linked to a mea- butions to the pension plan provide sure of performance - such as re- a highly tax-efficient way of investturn on capital or earnings per ing extra money. Unfortunately, share - which should directly en- they also tend to leave the scheme hance their own wealth. If, however, managers are rewarded for in- disclosed that the company would creasing pre-tax profits, sharehold-need to make annual payments of ers may justifiably anticipate that £593,000 to the senior executive they will be asked to stump up for a plan between 1984 and 1988 in order succession of rights issues.

The 1984 annual reports now options. That is a welcome development of relative performance.

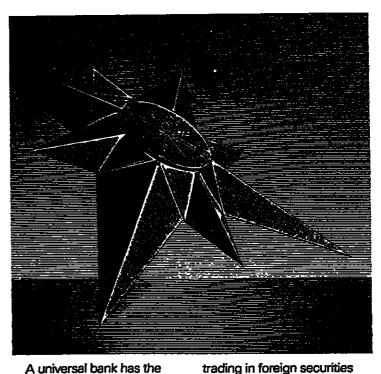
The 1984 annual reports now options. That is a welcome development of relative performance. unions and it is therefore all the If rewards are to be offered for more important that they are fully justified. It would be ridiculous if the acceptance by a workforce of a lated rise for the board.

Size alone should be no criterion. over, British directors are still pro-tected by service contracts which ensure substantial handshakes in 50 per cent for the second year run-

The onus for determining responelement and the basis of calculation the non-executive directors. Thereshould be fully disclosed in the ac- is, after all, more incentive than counts. Directors have been curiever for executives themselves to ously shy in the past about reveal- seek more money. The reduction in ing the details of their remunerathe top marginal tax rate has intion packages. Marks & Spencer creased the take-home value of adcaused an uncharacteristic stir ditional earned income, while the three years ago when it was obliged limitation of the value of share opto disclose generous housing ar-rangements for its directors, while a new dimension to the pay increases. With retiring executives a change in the tax law to reveal able to take 1% times their final salthat its chairman had received a ary as a tax-free lump sum, there is benefit amounting to £11,000 from good reason for a director to seek a the use of company accommoda- substantial payment as he approaches retirement.

For those still some distance underfunded. The STC accounts to make good the actuarial deficit. Full disclosure would also help to Non-executive directors will need to

Only someone on the right course can help you with yours.



right instruments to determine your exact position and help plot the best course to your goal. The coordinates of our branch system dot the globe. Among our comprehensive

services are time and notice deposits in all major currencies, short, medium and long-term loans (overdrafts, straight and roll-over loans, acceptance credits in £-stg, US \$, DM and other Eurocurrencies with special emphasis on trade finance and forfaiting), placement and

such as Eurobonds, convertibles etc., foreign exchange, and international portfolio management

Whenever and wherever you encounter problems with complicated international financing. contact the Deutsche Bank. We'll put your business on a

proper course. Deutsche Bank AG London Branch 6 Bishopsgate, P.O. Box 441 London EC2P 2 AT Tel.: 2834600

Deutsche Bank A century of universal banking

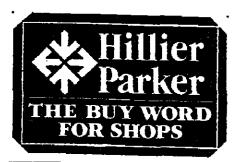


Published by The Flaancial Times (Europe) Ltd., Frankfurt Branch, represented by E. Hugo, Frankfurt/Main, and, as me the Board of Directors, F. Barkow, R.A.F. McClean, G.T.S. Damer, M.C. Gorman, D.E.P. Palmer, London, Printer: Frankfurtits-Druckersi GmbH, Frankfurt/Main, Responsible editor: C.E.P. Smith, Frankfurt/Main, O The Financial Times Ltd. 1

Swed

ķi.

9



SECTION II - COMPANIES AND MARKETS **FINANCIAL TIMES**

Monday April 15 1985



New era dawns with easing of rules in the D-Mark sector

BY PETER MONTAGNON, EUROMARKETS CORRESPONDENT, IN LONDON

A NEW ERA has dawned in the Eu- 1980 but was still rather small last romarkets. On Friday the Bundes- year at just over 6 per cent. bank confirmed that from next month foreign banks would be al- counselling some caution on Friday lowed to lead D-Mark Eurobonds, ending the cosy and lucrative mono-poly enjoyed by West German insti-sight. First, Japanese banks are be-

Simultaneously the German central bank has opened the door to a freedom for German banks in Torange of new capital market pro- kyo. Second, the Bundesbank reducts, notably swaps - which it has mains very anxious to keep the new resisted since last summer - and floating-rate notes, to which it has had a long-standing objection on the grounds that a floating rate is owned banks incorporated in Gerakin to index-linking and therefore a scarely veiled accommodation of

sues will also be allowed, leaving market. Some would-be particionly certificates of deposit as a pants will need time to set up the significant restricted product. These are not being permitted because of problems over minimum reserve requirements and because an active short-term market might cause difficulties for monetary con-

It all adds up to a major shake-up of the D-Mark sector that should in time lead to a marked increase in the German currency's share of the This has grown considerably since

But bankers in Frankfurt were night. The liberalisation is not as ing effectively excluded for the time being because there is no reciprocal market in Germany where it can

keep an eye on it.

For that reason only foreign many may lead issues. This ex-cludes branches and also some of the big U.S. investment houses that Zero coupon and dual currency is- are active in the Eurodollar bond necessary banking operations, and this might mean foreign involvement in the market will grow only

None the less the opening of their market to foreigners has been a hit-ter pill for German banks to swallow. That is one reason why they have made so much of the reciprocity issue in talks with the Bundesbank. Some German bankers also believe that the Bundesbank was bowing to international political

D-MARK NEW ISSUE CALENDAR Ost. Kontrollbank vec. controlibenk* Chrysler Fin. Corp.* Mortgage Bk of Dent Kingdom of Belghum Ind. Dev. Corp of S. i World Bank* Malamit* naysın mish Fin. (us. for ind. Portugel Council of Europe 200*

It may have had little option but to do so given the general movement towards liberalisation elsewhere and the rapidly growing depth and sophistication of markets in the big international centres like London and New York. As with the Japanese yen there is also a feeling tors to hold D-Marks might lead to greater demand for the currency and thus help it strengthen against the dollar.

Even though they are worried at the possibility of a disorderly market in which a glut of Eurobonds on fine terms might wreak havoc with

stantially into their profits, some German bankers still argue that they have won a good deal in persuading the Bundesbank to drop its opposition to products such as floatng-rate notes. That was one thing which we requested," said one se-nior German banker. "We are delighted to have many more instruments available than we used to

have." said another. In the short run the main impact of Friday's announcement is that German banks will no longer set a formal calendar of new issues. Friday's DM 1.74bn programme up till end of April will be the last,

ending a ritual that has been in force since 1980.

taken aback by the size of the calendar - it appears that German banks want to make the most of their last two weeks of privilege. Much depends now on the performance of markets elsewhere. A strong U.S. bond market and weaker dollar could help lift new D-Mark issues off the ground.

The first two issues, 7% per cent private placements for Austria's Kontrollbank and for Chrysler Financial Corporation, got off to a reasonably good start. Whereas Chrysler is not nearly such a good name, it derived some benefit from the fact that this is its first issue in Germany for 16 years. Kontrollbank meanwhile has been a regular and heavy borrower, and Swiss in-vestors particularly tend to shy away from Austrian names for that

Elsewhere, Thursday's rally which permitted the launch of four successful straight issues in the fixed-rate dollar market was not followed through on Friday. European investors remain wary of a weaker dollar, with the result that the U.S. domestic market is again becoming cheaper for borrowers. Only one

new issuer came to the dollar Eurobond market on Friday - Bell and Howell, the U.S. specialised business equipment maker which is raising \$50m with a \$30m tap.

That left the reopening of the French franc Eurobond market by Gaz de France as probably the most striking event of last week. The issue of up to FFr 750m in 11% per cent, 15-year retractable bonds traded around its par issue price from the day of launch, which is an almost unique performance in these days when any bond that simply trades within its fees is regarded as success. The deal is likely to be followed up this week by a second issue, a FFr 250m deal for the European Coal and Steel Community,

New issue volume was high in Ecus last week, but an Ecu 200m four-year issue launched on Friday for Italy by Morgan Stanley met a muted response because of its low coupon of 9% per cent. Swiss franc issues closed the week firm.

expected to be led by Banque Na-

tionale de Paris.

 Arab Banking Corporation has launched a HKS360m (\$46.2m) fiveyear floating-rate note, funds from which will be used to finance its purchase of a 75 per cent stake in

EUROMARKET TURNOVER

ights Conv FRN Other U.S.\$ 440.5 92.7 525.0 77.5 Prev 1,913.2 153.8 1,093.0 79.5 Other 88.3 — — 68.4 Prev 676.3 0.1 0.7 12.4 U.S.S 12.449.2 653.4 9.339.4 1.253.4 Prev 1,744.3 15.4 894.3 8,605.1 1,894.3 Other 1,744.3 15.4 327.1 887.4 Prev 2,895.3 22.9 279.6 1,223.8

8,097.0 16,734.4 24,831.4 9,447.1 19,780.6 22,227.7 1,454.2 2,581.7

Week to April 11, 1985

Sun Hung Kai Bank Ltd. Reuter reports from Hong Kong. The note carries interest at 1/16 point over the Hong Kong inter-bank offered rate and is callable at par after three years. It is leadmanaged by Citicorp International.

Management and underwriting fees are 0.175 percentage point and selling concession 0.2 point. Bank of China and Sun Hung Kai International, the merchant banking arm of Sun Hung Kai Co, are co-lead

S. African hotel groups to merge

SOUTHERN SUN and the local Holiday Inns chain, South Africa's two leading hotel groups, are to be merged to form a domestic group with 50 hotels and a virtual mono-poly of the middle to upper end of he country's hotel market.

The deal has been approved by the Competition Board, which says it has the potential to increase the number of foreign tourists visiting South Africa.

Terms of the deal are that Southern Sun, which is controlled by South African Breweries (SAB) and which operates 26 hotels, will acquire the 24-hotel Holiday Inn chain from Salmarine and Rennies Holdings (Safren) in exchange for an issue of 14.8m new Southern Sun shares to Safren.

On Friday Southern Sun's shares were quoted at R7.10 on the Johannesburg Stock Exchange, valuing the deal at R105m (\$55.2m). The shares to be issued to Safren will represent 21 per cent of Southern Sun's enlarged capital. SAB will hold 68 per cent of Southern Sun on completion of the deal.

Safren will pass the Southern Sun shares to Kersaf, Safren's subsidiary which operates the Sun International resorts and gambling chain. In addition, Safren will transfer its liquor interests to Kersaf as well as its 36.5 per cent directly held interest in Sun International. As a result Kersaf will become the group's operating company with a 21 per cent interest in Southern Sun and 73 per cent of Sun International. In exchange for these new assets Kersaf will allot 35m of its own new shares to Sa-

Safren will then hold 79.3 p cent of Kersaf, while another 13.1 per cent will be held by Mr Soi Kerzner and his partner, Mr Dick Goss, Mr Goss was until 1983 the managing director of SAB and Mr Kerzper was chief executive of the Southern Sun Hotel.

CREDITS AND EURONOTES

Sweden and Sumitomo Bank embarrassed over deadlocked Euroyen loan

BY OUR EUROMARKETS CORRESPONDENT

THE FIRST large Eurocredit in yen Sweden's National Debt Office, flew tomo won the mandate on its own. since the market was opened on to Tokyo over the weekend to com- Some claim that it is to collect a April 1 has turned into a grave embarrassment for Sumitomo Bank and for Sweden, which is seeking to to launch this week through Nomu-

raise Y100bn (\$398m). Sumitomo Bank, which received the sole mandate, admitted on Frinces banks in an effort to break the day that two weeks into the syndication process it had not yet found a single other bank willing to join the that the deal has proved a highly indeal. Bankers say it faces a concert- auspicious start to the new Euroed effort on the part of other Japa- pean credit market. Besides the prinese banks to resist the terms

ni cour

plete arrangements for a Y50bn special fee, known in the trade as a Samurai bond that Sweden is due praecipuum, for arranging the deal, ra Securities. While there, he is ex- strongly denies.

deadlock on the credit. What is already clear, however, is

Japanese bankers say they regard the % per cent margin for veden as a dangerous precedent. It would set a benchmark for other high quality borrowers which they would prefer to see somewhere closer to % per cent. But there is alnese banks to resist the terms cing, Japanese banks appear to so an argument for saying that such which include a fine margin of just have been seized with what some a margin still allows Japanese per cent over Libor. people in the market are calling a banks a high return as their fund-Mr Peter Engstrom, director of fit of pique over the fact that Sumi-ing costs in yen are low. Going

along with it would therefore be one way of keeping non-Japanese banks out of what ought to be a lucrative market.

Unless the deadlock can be broken, Sweden faces an embarrassing choice. It could accept a change in terms on the deal, which would be a serious humiliation for the market's most prestigious borrower. Or it could ask for syndication to be opened up to non-Japanese institutions. But even this might not work since foreign banks face higher yen funding costs and would certainly Japan is in the news for other

irement guidelines for Japanese banks. Details remained sketchy as long as a year before any regulatory changes take effect. One suggestion is that underwriting obligaper cent of that of a loan when capi-

proposals setting out new capital re- tio used by British banks to measure capital needs. The net thus seems to be closing in on the Euroover the weekend, but the proposals note market rather faster than are under tood to take the form of a some bankers had expected. Most discussion document, and it may be agree that such requirements will only really bite if they are imposed by all major countries. Even if implemented the Japa-

tions for Europote issuance facili-ties should be given a weighting 30 have only limited effect since most banks are believed to be well within tal needs are measured. the suggested requirements al-This follows a Bank of England circular earlier this month which suthorities are now taking a con-

reasons too. Late last week the imposed an immediate inclusion of certed look at off-balance sheet Ministry of Finance circulated draft such obligations in the risk asset rabusiness can only reinforce what is business can only reinforce what is now seen in the market as a slight but perceptible trend towards higher fees on note facilities. For the time being the Europote

> market seems to be carrying on much as before. Last week, Indonesia was putting the final touches on a \$400m facility, while Fiat launched a \$150m deal through Citicorp. This five-year facility carries a fee of five basis points and allows funds to be raised through the sale of Euronotes or sterling bankers acceptances. There is also a \$100m



Securities held in the Euro-clear System on behalf of Participants now exceed

U.S.\$200,000,000,000

Depositaries

Amsterdam-Rotterdam Bank N.V., Amsterdam Barclays Bank plc, London The Bank of Tokyo. Barclays National Bank Limited, Johannesburg Caisse d'Epargne de l'etat, Luxembourg Copenhagen Handelsbank A/S, Copenhagen

Deutsche Bank A.G., Frankfurt Crédit Suisse, Zurich The Development Bank of Singapore Limited, Singapore French Bank of Southern Africa Limited, Johannesburg The Hongkong and Shanghai Banking Corporation, Hong Kong

The Industrial Bank of Japan, Limited, Tokyo Midland Bank plc, London Morgan Guaranty Trust Company of New York, Brussels, London, New York, Paris Pictet & Cie., Geneva The Royal Bank of Canada, Toronto Swiss Bank of Corporation, Basle Union Bank of Switzerland, London

> The Euro-clear System is operated under contract by Morgan Guaranty Trust Company of New York

The Euro-clear System is a service of Euro-clear Clearance System Public Limited Company



Kingdom of Sweden

U.S. \$700,000,000

Floating Rate Notes Due 2005 3/6% Income Rights Due 1990

Issued pursuant to an Offer for Subscription by Tender

Fully underwritten by

Morgan Guaranty Ltd

The following institutions submitted competitive bids and were allocated Notes in a principal amount in excess of U.S.\$10,000,000

BANKERS TRUST INTERNATIONAL LIMITED BANQUE PARIBAS CAPITAL MARKETS CHASE MANHATTAN CAPITAL MARKETS GROUP CRÉDIT LYONNAIS DAIWA EUROPE LIMITED

GOLDMAN SACHS INTERNATIONAL CORP. MITSUBISHI FINANCE INTERNATIONAL LIMITED

MORGAN GUARANTY LTD Nomura International Limited PK CHRISTIANIA BANK (UK) LIMITED

BANQUE BRUXELLES LAMBERT S.A. BARCLAYS MERCHANT BANK LIMITED CITICORP CAPITAL MARKETS GROUP Dai-Ichi Kangyo International Limited DRESDNER BANK AKTIENGESELLSCHAFT E. F. HUTTON & COMPANY (LONDON) LIMITED MITSUI TRUST BANK (EUROPE) S.A. Morgan Stanley International ORION ROYAL BANK LIMITED S. G. Warburg & Co. Ltd.

YAMAICHI INTERNATIONAL (EUROPE) LIMITED

The following institutions submitted non-competitive bids for U.S.\$10,000,000

DILLON READ OVERSEAS CORPORATION IRVING TRUST INTERNATIONAL LIMITED MITSUI TRUST BANK (EUROPE) S.A. MORGAN STANLEY INTERNATIONAL

E. F. HUTTON & COMPANY (LONDON) LIMITED KYOWA BANK NEDERLAND N.V. MORGAN GUARANTY LTD SVENSKA INTERNATIONAL LIMITED

Tender Agent:

Morgan Guaranty Trust Company of New York

This announcement appears as a matter of record only. The Notes were offered and sold outside of the United States of America.



Ford Motor Credit Company

U.S. \$100,000,000

115/8% Notes due March 7, 1995

Goldman Sachs International Corp.

Deutsche Bank Aktiengesellschaft

Swiss Bank Corporation International Limited

Union Bank of Switzerland (Securities) Limited

Commerzbank Aktiengesellschaft

Banque Nationale de Paris

Credit Suisse First Boston Limited

Samuel Montagu & Co. Limited

Morgan Stanley International

Société Générale de Banque S.A.

County Bank Limited

Merrill Lynch Capital Markets

Morgan Guaranty Ltd Salomon Brothers International Limited

Sumitomo Finance International

March. 1985

This announcement appears as a matter of record only. The Notes were offered and sold outside of the United States of America.



The Kingdom of Denmark

U.S. \$100,000,000

10% Notes due March 1990

Goldman Sachs International Corp.

Banque Bruxelles Lambert S.A.

Banque Internationale à Luxembourg S.A.

Deutsche Bank Aktiengesellschaft

First Chicago Limited

Kredietbank S.A. Luxembourgeoise

Mitsubishi Finance International Limited

Mitsui Finance International Limited

The Nikko Securities Co., (Europe) Ltd.

PK Christiania Bank (UK) Limited

Yamaichi International (Europe) Limited Privatbanken A/S

Copenhagen Handelsbank A/S

Den Danske Bank

Kleinwort, Benson Limited

Banque Indosuez

Daiwa Europe Limited

Kansallis-Osake-Pankki

Merrill Lynch Capital Markets

Morgan Stanley International

Svenska Handelsbanken Group

Orion Royal Bank Limited

Mitsubishi Trust & Banking Corporation

(Europe) S.A.

Enskilda Securities

This announcement appears as a matter of record only. The Notes were offered and sold outside of the United States of America.



(Sumitomo Shojt Kabushtki Katsha) (Incorporated with limited liability under the Commercial Code of Japan)

U.S. \$100,000,000

10% per cent. Notes due 1992

Goldman Sachs International Corp.

Sumitomo Finance International

Daiwa Europe Limited

Kleinwort, Benson Limited

Bank of Tokyo International Limited

Credit Suisse First Boston Limited

Morgan Guaranty Ltd

The Nikko Securities Co., (Europe) Ltd.

J. Henry Schroder Wagg & Co. Limited

Swiss Bank Corporation International Limited

Deutsche Bank Aktiengesellschaft

Banque Nationale de Paris

Morgan Stanley International

Nomura International Limited

Sumitomo Trust International Limited

S. G. Warburg & Co. Ltd.

This announcement appears as a matter of record only. The Notes were offered and sold outside of the United States of America.



AB SVENSK EXPORTKREDIT

(SWEDISH EXPORT CREDIT CORPORATION)

U.S. \$125,000,000

Floating Rate Notes due March 1992

Goldman Sachs International Corp.

Daiwa Europe Limited

Banque Bruxelles Lambert S.A.

Enskilda Securities Skandinaviska Enskilda Limited

Kansallis-Osake-Pankki

Mitsubishi Finance International Limited

The Nikko Securities Co., (Europe) Ltd.

PKbanken

Takugin International Bank (Europe) S.A.

Westdeutsche Landesbank Girozentrale

Crédit Lyonnais

IBJ International Limited

LTCB International Limited

Morgan Stanley International

Nomura International Limited

Svenska Handelsbanken Group

Tokai International Limited

Yamaichi International (Europe) Limited

INTERNATIONAL CAPITAL MARKETS AND COMPANIES

UK SHORT-TERM SECURITIES

Adventurers needed to test the water

TREASURERS of Britain's the borrowers to make use of biggest companies have been happily dusting off long-shelved strategies for issuing short-strategies in sterling. But the mean securities in sterling. But the mean securities in sterling areas.

There will the restriction of big companies to raise money is through a Euronote facility offering a range of instruments which market demanding on the borrower's companies to raise money is through a Euronote facility offering a range of instruments which are the borrower's companies have been the new sterling market—which for big companies to raise money is through a Euronote facility offering a range of instruments which was the borrower's companies to raise money is through a Euronote facility offering a range of instruments which was the borrower's companies to raise money is through a Euronote facility offering a range of instruments which was the borrower's companies to raise money is through a Euronote facility offering a range of instruments which was the borrower's companies to raise money is through a Euronote facility offering a range of instruments which will be a strument which will be a strument which are the borrowers to make use of Currently, the fashionable way the borrowers to make use of the new sterling market—which will encompass domestic and the proposition of the borrowers to make use of the proposition of the the market dramatically opened last month by Mr Nigel Lawson, the Chancellor of the Exchequer, is likely to see a quoted on the junior Unlisted be considering whether to inservices market, and the new chancel or the borrower's tions. Issuers must be listed on precise funding and timing the London Stock Exchange or requirements. Now they will be considering whether to inservices market, and the new chance a sterling option in new considering option in new considering the considering option in new constants.

Until the Budget, companies wishing to raise money in sterling for less than five years had been unable to issue securities because the strict signs that the Bank of England would have treated them as that the new market will be a stepping stone towards a comwording of the banking as that the new market will be a equivalent to deposit-takers. Mr stepping stone towards a com-Lawson promised to amend the mercial paper market. The

the U.S. farm equipment pro-ducer, have included options for open to corporate treasurers?

Aerospatiale

By David Marsh in Paris

AEROSPATIALE, the French

state-owned aerospace group,

made a net profit of FFr 330m (\$35.4m) last year after losses of FFr 357m in 1983, on sales

up 10 per cent to FFr 25.1bn.

New orders last year rose 57 per cent to FFr 20.1bn from

FFr 12.8bn in 1983, with foreign

orders rising to FFr 11.6bn

Out of total sales-61 per cent of which came from exports—aircraft and guided

weapons represented FFr 8bn

each, with helicopters FFr 4.9bn and ballistic missiles and space activities accounting for

Underlining the commercial

efforts being made by the group and the gradual recovery in the aerospace market, M Henri

Martre, the chairman, said new

orders were expected to rise a

further 50 per cent this year.

from FFr 4.4bn.

FFr 4.1bn.

returns to

the black

ar i santled

in Limited

made de Pag

:::२०१:५१:||८१:

and or matters

STREET, LINE

atronal **larg**

 $m_{1} \lesssim dc \, Ca \, {
m kg}$

preserences become better de securities must either be listal themselves or be accompanied

Act, though a commercial paper market. The Act, though a commercial paper market along U.S. lines will still be barred by a one-year minimum maturity.

Already, Euronote facilities for Imperial Chemical Industries of the UK and John Deere, and monetary control.

What ontions will be a market. The Bank is understood no longer to have any philosophical objection to a full-scale short-term paper market, especially as paper market. Specially as paper more and monetary control.

facilities, or to amend existing

agreements.
ICI, whose \$400m facility is led by Citicorp, will be able to issue sterling intermediate term notes through the tender panel system, in which a group of banks determined at the start of the facility is asked to bid when an issue is to be made. The successful bidders then dis-

tribute the securities.

Each tranche will not require approval from the Bank of England—as would any normal individual offering — for the Bank will allow the sterling commercial paper. But it is not yet clear to what extent the Bank of England would allow option to operate as a tap within a maximum amount and a specified period.

\$600m facility, led by Merrill petitive way to raise money Lynch, there will be no tender only if investor appetite for panel but Deere can seek bids such paper was found.

from the syndicate banks and Some demand from borrowspecify the desired terms. To envisage sterling issues in issues, which could be priced the terms of a Euronote facility relative to gilts of similar requirements. Now they will the terms of a Euronote facility relative to gilts of similar be considering whether to in- is not, however, to create the maturities just as dollar bonds clude a sterling option in new market. To do so, treasurers are related to U.S. Treasuries. will need to be convinced that 'The booming market in swaps, the securities would be com-petitive with other instruments. a floating for a fixed interest For floating rate funds, 10r example, large British companies can already issue commercial paper in the U.S. and convert the proceeds into sterling through the use of the forward foreign exchange market. Or they can use bankers acceptances in sterling.

The payment stream of the fixed rate funds despite high rates. Clearly, investor demand will determine the size, maturity range and rate-setting mechanisms of any new market. And given that many of the likely borrowers will be British companies relatively unknown payment stream or vice versa, indicates a demand for fixed For floating rate funds, for One- to five-year floating rate notes with very frequent repricings — say, every 30 or 90 days — would create a comparable instrument to U.S. for a few adventurers to test

the waters Alexander Nicoll

1	Borrowers	Amount C.	Materity	Av. life years	Coupon %	Price	Load Manager	Offer yaold 0.0
ı	U.S. DOLLARS					-		
1	Sony ¶İ	100	1990	5	7%	100	Nortura Int.	7.758
١.	Auto, Atlantico (b) †‡	115	1993	8	V18	102	Man. Hanover	
, [Libra Bank (c) †1	100	1995	1Ď	V4	109	Banque Paribes	_
- 1	Nippen Of S	70	2008	15	(3)	100	Yamaichi Int. (Eur.)	•
1	Sunatomo Warehouse I	30	1998	5	11%	100	Mildo Secs. (Eur)	11.125
. 1	Raiston Purint I	150	1995	10	113/4	99 5/s	Goldman Socks	11.816
Н	Victoria Pub. Auth. ‡	150	1992	7	1158	89 ¹ /2	Deutsche Bank	11.734
il	Ford Motor Credit ‡	100	1992	7	1134	190	CSFB.	11.750 11.750
:	Dressel Burnham ‡	75	1990	.5	113/4	100	Drexel Burnham	11.750
i	Credit and et Com. It! Banco di Roma (f)†!	200 150	1997 1992	12 7	(8)	100 180	CSFB Moroum Guaranty	Ξ
1	Chase Manhattan (g)†‡	250	1992 2000	15	10bp 1/16	100	Chase Manhattan	_
: 1	Minnon Sheet Glass 5	48	1995	10	(3)	100	Danes Europe	•
:	Bell and Howell (i) I	50	1992	"	12	180	Benove Puribas	12,000
1	Nits Finance (k) 1	50	1989	2.7	1/2	180	United Sulf lay. Co.	
il	AUSTRALIAN DOLLARS							
	PKhasken ‡	478	1991	6	1374	100.8	Salomon Bruthers	13.671
;	NEW ZEALAND DOLLARS							
- [Nordic law. Bank ‡	50	1990	5	16	180	Mergan Stanley	16.000
1	D-MARKS	100	1995	10	734	991/2	Manage D	7.824
-	Renfe ‡ Chrysler Fin. Cer. **1	100 200	1998 1998	5	71/4	33 YZ 100	WestiB BHF-Bank	7.024 7.258
2	OKB **‡	100	1990	5	71/4	100	Bayerische Vereinsbk	7.258
5	SWISS FRANCS				_			
5	Nat. Patent Dev. Corp. 51	60 max	1995	-	53/4	180	Bos Gutzwiller, K.B.	5.750
ŧΙ	Sumitomo Realty **5‡	145	1999	_	11/2	100	Credit Suisse	1.590
·	Mitsubasti Belting * \$	20	1990	-	(13/4)		Bge Paribas	:
ı{	TransCanada Pipe	150	1995 1990	-	(53/4) (15/6)	100 100	UBS SBC	·
• }	Oki Electric ""5 Beical Chemical ""5	88 max 38	1990	-	(13/4)	100	UBS	
-	FGH Mortgage Benk	50	1987	_	(d)		Boe Gutzwiller, K.B.	•
{	Nippon Cil ** §	109	1990	-	(15/s)	190	Credit Suisse	•
ı	ECUs					4		
١	Credito Italiano I	70 75	1992 1933	81/2 8	9% 10Vs	100 100	Morgan Guaranty	9.875 10.125
ı	Chrysler Fin. Corp. ‡ Itely ‡	209	1989	4	93/4	99%	Soc. Generale, EBC Morgan Stanley	9.414
,	PRIVATbanken ‡	50 50	1992	7	10	1001/4	Kredietbank Int.	9.949
-	STERLING			-	_			
• [Royal Bk Scotland (a) †‡	100	2005	18	V16	190	S.G. Warburg	_
	IAD8 (h)‡	75	1995	10	113%	991/4	S.G. Warburg	11.505
3 }	FRENCH FRANCS			4.5				42.000
. 1	EB ‡	1ka 750	1995 2600	18 15	11.9 111/4	99 TD B	Credit Lyontais CCF	12.078 11.250
3	Gaz de France ؇		2000		1174	100	PPL	11730
2	GUILDERS World Bank ""I	150	1990	5	71/2	993/4	AEN	7.562
1	Eurofices **‡	50	1982	7	71/2	188	AmRo	7.508
-	YEN	•						
§	Sony 5‡	30 62	2000	15	2	100	Nonces Int.	2.600 1.875
;	Fanuc 91	20bn	1995	1D	135	100 100	Niko Secs. (Eur)	1.875 2.500
H	Missbinbo lad. 91 Sekisui House 91	15bn 15be	1995 1995	10 10	2½ 2½	100	Niikko Secs. (Eur) Niikko Secs. (Eur)	2.500 2.500
۱.	Moury Benk ‡	1308 25hn	1990 1990	10 5	65/e	993/4	Nomura Int.	6.685
}	Prev. of Manitoba I	20bn	1995	j	7.4	100	Niko Secs.	7.400
1	- 1544 E1 HOMBOOM +	200	4007	-		60 DE	Yamaiaki Casa	7 207

NEW INTERNATIONAL BOND ISSUES

* Not yet priced. ‡ Final terus. ** Private pla Ø FFr 250m can be exchanged with existing 13% of FFr 25thm can be exchanged with existing 13%% bond staturing 186; coupon readjusted are tap. (b) Via over 6m Liber. (c) ¼ over 6m Libers of S (e) Equal to 6m Libid. (f) 10bp over 1m Liber flat, paid monthly. (g) Via over 3m Liber. (h) over 6m Liber. Note: Yields are calculated on ABO hasss. thly. (g) V1s over 3m Libor. (h) Add £25m tap. (j) Add \$30m tap. (k) 1/2

Consortium to buy stake in Mondadori

BY ALAN FRIEDMAN IN MILAN

ancier in his own right, is join-ing a consortium of investors including Pirelli and the Berlusconi television group to take a 24.5 per cent share of Italy's Mondadori publishing group.

The deal is to be accomplished via a capital increase of L58.5bn (\$29.9m) which will dilute the 57 per cent of ordinary shares held by the Mondadori family to 33 per cent and will link the Mondadoris and the new consortium in a syndicate of control

1984 loss on L939bn of con- of total turnover. solidated revenues. This com-

solidated revenues. This compares with a L47bn net profit on a L78lbn turnover in 1983.

Mondadori which last autumn sold its loss-making Rete Quattro television station to Sig Silvio Berlusconi. the television on a L781bn turnover in 1983. an extraordinary shareholders' shareholders should its loss-making Rete Quattro television station to Sig entrepreneur, is facing a heavy debt burden of L380bn, which compares with group share-holders' funds of L80bn. Before selling out its stake in Rete Quattro, Mondadori lost L175bn on the television venture. Last at the Milan-based group on the television venture. Last This afternoon Mandadori is year Mondadoris debt servicing

SIG CARLO De Benedetti, the expected to announce a L13bn costs amounted to 5.4 per cent Commerciale Italiana, are Sig Olivetti chief who is also a fin- 1984 loss on L939bn of con- of total turnover. Berlusconi; Sig Vittorio Mer-Berlusconi; Sig Vittorio Mer-loni, the former head of the Confindustria employers' asso-After the increase in capital,

> Sig De Benedeti has har-boured ambitions to own a piece of Mondadori for some time, and following the deal he of 1984 revenues, has been in need of capital since its television losses started mounting. Some 45 per cent of Mondadori's is expected to have 16 per cent of the control syndicate. Others consolidated sales come from its periodicals and advertising businesses, while 25 per cent comes from book publishing. involved in the deal, which is being co-ordinated by Banca

Messer Griesheim lifts net earnings by 37.5%

BY JOHN DAVIES IN FRANKFURT

ighte trease is not am a source

gases and of welding and cutting equipment, strongly increased sales revenue and earnings last year.

The group's finances also The company which is twoimproved last year with debts dropping from an unusually thirds owned by Hoechst, the food preparation. high FFr 8.1bn at end-1983 to FFr 4.9bn at end 1984. Research chemical concern, and one-third by the Messer family, lifted and development spending rose to FFr 6.5bn from FFr 5.8bn.

MESSER GRIESHEIM, the West profit rose 37.5 per cent to German producer of industrial DM 55m. Economic recovery in West Germany and abroad helped to boost sales of industrial gases, but the company has also been developing many new markets for gases, including their use in

The welding and cutting equipment division reduced its revenue 8.4 per cent to loss and is expected to reach DM 1.767bn (\$577.9m) while net break-even this year.

เรียกราชสามอาการ ของไ

First-quarter increase in profits at BankAmerica

BY PAUL TAYLOR IN NEW YORK BANKAMERICA, the second to \$114m or 63 cents a share

largest U.S. banking group, has reported a 13 per cent gain in first-quarter net earnings-but again noted that it continues to be plagued by "higher than normal " loan losses.

The San Francisco banking group, which has been struggling to regain its profits momentum, said net earnings in the first quarter increased

BankAmerica said the earnings improvement ref higher revenues and efforts to control costs which have included sizeable workforce reductions and branch closures. Net interest income grew by 10 per cent in the first quarter to \$1.02bn from \$929m a year



Financial Times - delivered by hand in your city in the USA?

tlanta, Boston, Chicago, Detroit, Houston, Los Angeles, Mexico City, Miami, Montreal, New York, Philadelphia, Pattsburgh, San Francisco, Seattle, Toronto, Vancourer, Washington

For details contact: Financial Times (Europe) Ltd., Guiolletstrasse 54; 61410 Frankfurt/Main 1, West Germany. Tel: (069) 75980 Telex: 416 193. Tel: 752-4500 Telex. 238409 FTOL UL

Financial Times. 14 East with Street, New York, NY 10022.

In 9 weeks the leaders of Corporate America will be taking a close look at Britain



Forbes magazine is pleased to announce the publication of a special economic and industrial supplement in the July 1st issue, which appears on June 17th.

American investment in Britain is growing steadily - in the financial and service sectors, in industry, in property and in industrial location.

in America

Because Forbes intends that this supplement will be authoritative and comprehensive, we are delighted that following leading commentators and journalists have agreed to give their expert

Sunday Telegraph Ronald Butt. Associate Editor, The Times ivan Fallon, Deputy Editor, The Sunday Times David Harrison-Harvey, Director, Invest in Britain Bureau Richard Sharpe, Editor, Computing Magazine Alan Shelley, Senior Partner, Knight, Frank & Rutley Keppel Simpson, Director, PA Consulting Group

Lord Bruce-Gardyne,

Forbes is America's leading business magazine. Of its 720,000 subscribers, 47% are in top management and 92% own corporate stock. A higher proportion of business leaders in the 1,300 largest American companies read Forbes than any other business magazine.

Any British company or organisation which would welcome investment from the United States, advises on investment decisions or wants to do business in America should participate in this vital supplement

For further information please contact: Peter M. Schoff, Director International Advertising Forbes Magazine 50A Pali Mali, London SW1Y 5JQ Tel: 01-930-0161/2

1984 Results in Brief

1984

£1,600m £1,457m Turnover Profit before tax £151.5m £137.5m

Profit after tax £86.7m £84.9m and minority interests Earnings per share 43.9p 43.0p Total dividend per share 11.0p 11.8p

£875.2m £782.3m Shareholders funds

Sales and tradi	ng profit	by geog	raphical	area
	5	Sales	Trading	g Profit
	1984 £m	1983 £m	1984 £m	1983 £m
United Kingdom	819	823	54.9	70.5
Canada	208	172	24.6	20.0
USA	251	[,] 173	35.3	17.3
Australia	227	190	17.1	14.5
Others	95	99	10.2	10.5
	1 600	1 457	142.1	132.8

Annual Report 1984

The Annual Report for the year to 31st December 1984 of Hawker Siddeley Group PLC will be posted to shareholders on 10th May 1985.

Annual General Meeting
The Annual General Meeting will be held at the Dorchester
Hotel, Park Lane, London WI on 19th June 1985 at 12 noon. For a copy of the Annual Report, please write to: The Secretary, Hawker Siddeley Group PLC 18 St. James's Square, London SW1Y4LJ.

HAWKER SIDDELEY GROUP
PUBLIC LIMITED COMPANY

Enaineers to the world

Μ3

U.S. MONEY AND CREDIT

Signs of slowing economy spur bond rally

the economy—and especially on this Thursday's preliminary first-quarter gross domestic pro duct (GNP) update on the 2.1 per cent "flash" estimate.

U.S. bond prices surged last week, continuing a recent sharp rally spurred by indications of a slowing economy and a more generous Federal Reserve Board.

immediate causes of latest price gains were a comment from Mr Paul Volcker, the Fed chairman, that economic growth could fade later this year, and an unexpected 1.9 per cent decline in retail sales March—the biggest monthly fall since January 1978.

The other key factor was a further sharp decline in U.S. omic bears (and credit market short-term interest rates-a decline which, taken together with emerging signs of potential economic weakness and another government security dealer go-ing bust, sent the dollar plung-

	Last	1 week	4 wks	—12-m	ionth-
	Friday	290	- 20 0	High	Lov
Fed Funds (weekly average)	8.69	8.56	8.77	11.77	7.8
Three-month Treasury bills	8.04	8.13	8.42	10.77	7.58
Soc-month Treasury bills	8.25	8.41	8.59	10.83	7.87
Three-month prime CDs	8.60	8.85	9.15	11.90	8,QE
30-day Commercial Paper	8,40	8.66	9.10	17.38	7.80
90-day Commercial Paper	8.45	8.70	9.10	11.40	7.90
U.S. BOND PRICES	AND 1	YIELDS	(%)	-	
	Last	Сілапда		1 week	4 wki
	Friday	on week	Yield	290	890
Seven-year Tressury	102¹,	+ 1%	11.30	11,64	(new)
O-year Treasury	1027	+ 21	11.62	11.90	(new)
O-year Treasury	97%	+ 25	11,38	11.65	11.83
New 10-year "A" Financial	N/A	+ 11	12.00	12.30	12.50
New "AA" Long utility	N/A	+ 3%	12.38	12.88	13.01
New "AA" Long Industrial	N/A	+ 25	12.13	12.51	12.7

bulls) appear to have the upper hand—even though few, if any, senior economists are yet ready to write the obituary for the latest economic boom.

government security dealer going bust, sent the dollar plunging.

At the close on Friday the
hotest debate on wall Street was
whether these were all passing
maintain a relatively accomfads. For the moment the econ
latest economic boom.

But most economics expect the past few weeks suggest that the past few we

Henry Kaufman of Salomon Brothers predicts, lead to a "modest Fed easing im-mediately ahead."

Specifically, Dr Kaufman argues: "Developments within to move into the 8 to 8.5 per March decline in retail sales cent range."

Such a prediction marks a change of heart for Dr Kaufman, but was a commonly held view in the credit markets by Friday's close. To justify his argument the Salomon Brothers economic guru adds: "Import-antly the pace of economic activity has not yet stepped up. indeed the weakness in retail sales in March suggests that growth in consumer demand, a key force behind the economic expansion, is waning somewhat.

"In addition, the strong dol-lar continues to be a dampener on U.S. economic output. Capital expenditure plans Capital expenditure plans remain strong, but actual first-quarter spending was probably below expectations. In sum. (this week's) preliminary data may include real first-quarter growth of no more than the 2.1 per cent as reported by the flash, indeed, it could be a little

slowing in economic growth."

Nevertheless, with bearish economic sentiments in the ascendancy-in sharp contrast to the general disbelief which greeted the flash GNP estimate when it was first released last month-other factors including the still substantial M1 over-shoot have been all but forgotten,

in MI leaves the basic money supply is being subjected to absupply measure some \$6bn normally large seasonal presabove the Fed's target range of sures and will be back within 4 to 7 per cent even though target by midyear.

March growth at 5.5 per cent was well below the 10.5 per cent pace of the previous 12 washes to the previous 12 washes the inflationary risk that the inflationary risk recent months.

Last week's \$1.9bn increase those who contend that money

was well below the 10.5 per cent view that the inflationary risk remains minimal despite the all the pace of growth of all the monetary aggregates slowed markedly last month, lending further support to This view, coupled with the adopted and enunciated in view that the inflationary risk remains minimal despite the dollar's recent sharp slide, is and in FOMC directives, it has grist to the mill for those who believe a slight Fed easing move the importance of international monetary and foreign exchange

FEDERAL RESERVE MONETARY TARGETS

M2 ||||||||

As Dr Kaufman says, "A developments, the related negamodest easing—now or sometive impact of the dollar's time soon—is consonant with businesses, the fragility of some sectors of our financial system. and a slowdown in the velocity of money." This week could prove the key testing ground. both for such sentiments and

1985

Paul Taylor

Rate cut shakes out the lethargy

possibility of another on the fall too quickly, and would in-horizon if sterling continues to stead like a period of consoliclimb, finally shook the gilt-dation at between 12; and 13 edged market out of its lethargy per cent.

Although gains at the very short end of the market were limited to around } point, medium-dated stocks ended the week up to II points higher following Friday's decision by Barclays and Midland to move their base rates down to 12% per

The market's reaction to the cut allowed the Government Broker to sell out of his remaining holdings (perhaps £150m) of 10½ per cent Exchequer 1997. The day before he had supplied small amount of 9 per cent Treasury 1994.

That must have provided some compensation for the lukewarm reception given to the tender offer of £400m of Treasury 3 per cent 1989. Brokers estimated that only a small fraction of the issue was

NEW ISSUE

But the optimists in the market were still hoping that if U.S. output data this week foreshadows a further weakening in the dollar's value then National Westminster and Lloyds could be tempted into another leap-frogging move to 12½ per cent.

The enthusiasm which accompanied sterling's strong per-formance pushed the March money supply figures into the background.

But, though no worse than expected—sterling M3 is at the top of its 6 to 10 per cent target range for 1984/85—the figures do provide an indication that there is floor under which short-term interest rates will not be allowed to fail.

The authorities' stance over that I the past week has shown that days.

in March, however, is likely to have confirmed the Bank in its

high for some time in order to squeeze demand for credit. come down rapidly in response to sterling's strength then any reversal on the foreign exchange markets—perhaps due to a recovery for the dollar or worries over oil prices—could send them we again these

send them up again just as quickly. That is a risk that for the moment at least it is not pre-

pared to take.

The conclusion drawn by many in the gilt-edged market is that the present floor under base rates is probably between 12 and 121 and 12 12 and 121 per cent—and that the Bank would prefer to reach that level in weeks rather than

small traction of the issue was taken up by the high-tax-payers that it was aimed at.

The Bank of England's firm hand with the discount market on Friday afternoon signalled clearly that the authorities are

policy).

The £1.8bn of bank lending likely to wait for this week's in March, however, is likely to U.S. GNP data before making a studement on that score.

have confirmed the Bank in its firm judgment on that score. We wish the general level of borrowing costs must remain high for some time in order to new gilt-edged market, released squeeze demand for credit.

The Bank is also acutely aware that if interest rates come down rapidly in response to startling transport.

The Bank is also acutely prises, although the general view among brokers was that the consultation period had brought some useful amendments.

In particular, the clearer definition of appeal procedures and the provision for an instant payment system, were seen as significant improvements on the original draft.

Perhaps the most interesting element of the new paper is that the Bank is giving prospective market-makers the chance to withdraw their applications after the closing date on May 3. It now seems certain that there will be at least 25 to 30 applications from prospective market-makers, despite the firm conviction of most brokers that the new market will be able to barely half that

Philip Stephens

APRIL 1985

These Notes having been sold, this announcement appears as a matter of record only

U.S. \$100,000,000

BBL (Cayman) Limited (Incorporated in the Cayman Islands)

Guaranteed Floating Rate Notes Due 2000



Unconditionally guaranteed by

Bangkok Bank Limited (Incorporated in the Kingdom of Thailand)

Credit Suisse First Boston Limited

Banque Indosuez

Banque Nationale de Paris

Commerzbank Aktiengesellschaft

First Chicago Limited

IBJ International Limited

Manufacturers Hanover Limited

Mitsui Finance Asia Limited

Mitsui Trust Bank (Europe) S.A.

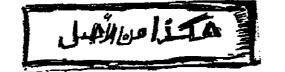
Morgan Grenfell & Co. Limited

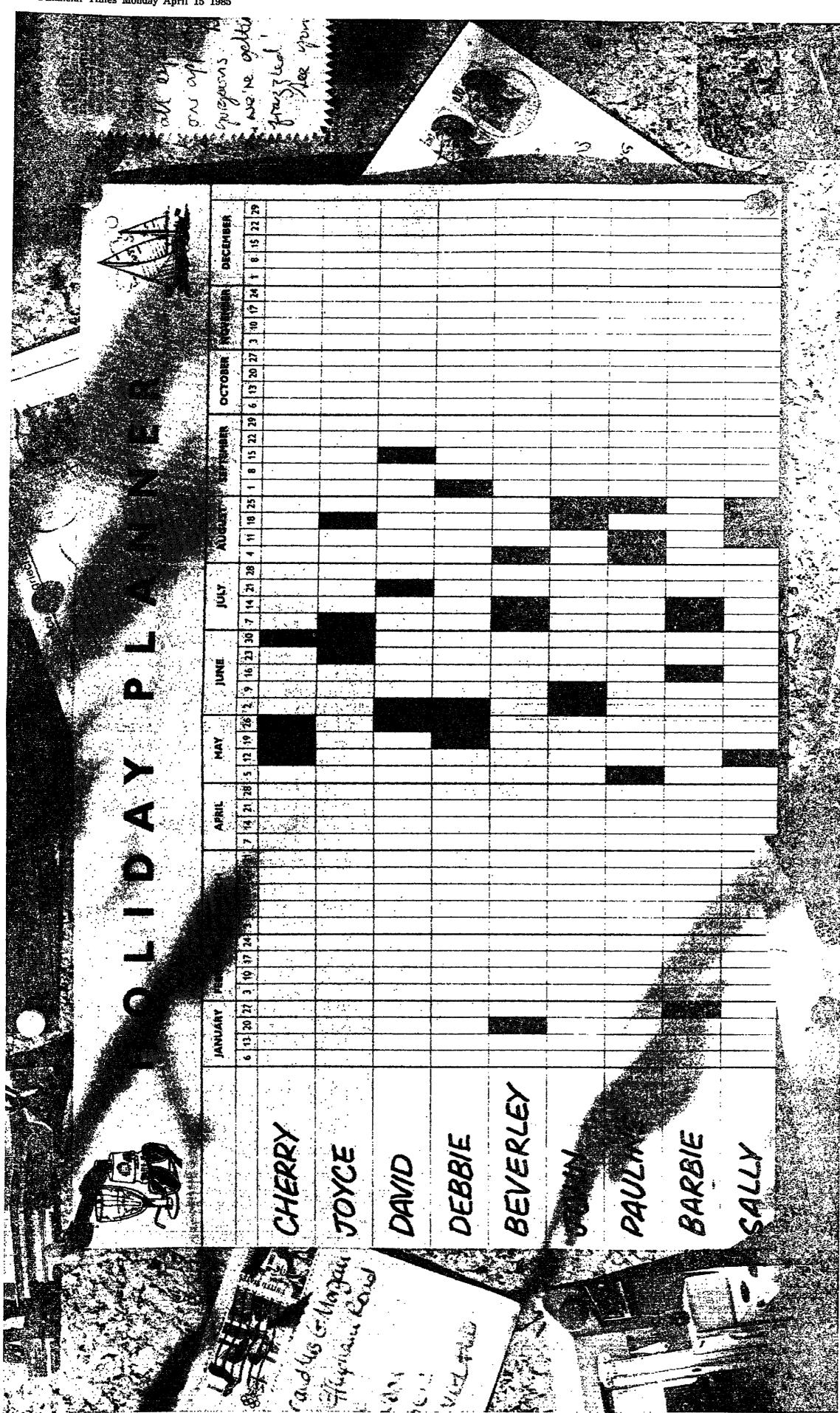
Nomura International Limited

Tokai International Limited

FT/AIBD INTERNATIONAL BOND SERVICE

U.S. DOLLAR Chg. on STRAIGHTS Issued Price week Yield	Texaco 10½ 90 200 95½ +0⅓ 11.60 Texaco 10½ 93 200 95% +1¼ 11.25 Texaco Capital 13½ 89 200 105% +1⅓ 11.68	Australia 8's 91
AHFC 0/S Fin 11½ 94 100 99½ +1% 11.83 Amer Savings 12 89 125 99½ +0½ 12.12 Amer Savings 12½ 89 100 100½ +0½ 12.18 Asian Oev 8k 11½ 93 100 99½ +2½ 11.79	Texas Instr 117, 91 150 1001, +07, 17.77 Toksi Asia 124, 91 100 1017, +11, 11.76 Tokyo Electric 61, 89 70 924 0 8.91	Eurofima 6½ 86 10 100% + 0% 6.23 Eurofima 7½ 94 10 101% - 0% 7.12 Eurofima 8½ 88 10 103% - 0% 7.80
Australia 11½ 90 100 101½ +1 10.87 Australia 11½ 95 300 99½ +1½ 11.52 Australia 11½ 98 100 99½ +1½ 11.52	Tokyo Electric 134 89 100 1084 +01; 11.45 Toronto-Dom 124 89 50 1014 +07; 12.25 UBS 124 91	Euro Invast Bk 84, 92 15 105% +0% 7.22 Finlend 84, 87
AIDC 11 89	Warner-Lambert 10% 80 100 95% +0% 11.42 West LB 11% 90 100 98 +0% 12.35 Wayshaeuser 11% 90 60 97% +1% 12.13	IADS 72, 94
Bank of Tokyo 13% 91 100 106% +1% 11.96 Bank of Tokyo 13% 89 100 106% +1% 11.74 Bge Nat Peris 13% 89 180 105% +1 11.87	PLOATING RATE NOTES Issued Price week C.cpn	New Zealand 7's 89 15 102's +0's 6.93 New Zealand 8's 87 15 103's +0's 6.77
Bige Nat Paris 14% 90 250 106% +0% 12.43 SPCE 15 86	Arab Bank Con 1, 96 100 997, +012 1074 BALL 1 51	World Bank 7 94 20 98% - 0% 7.21 World Bank 7 93 20 102% - 0% 7.20 Int Bk Roc Dev 8 93 20 105 0 7.14
Br Coi Hydro 12 ¹ 2 13 250 102 ¹ 4 +2 ¹ 2 12.58 Britoil Fin 11 ¹ 6 90 125 38 ³ 4 +1 ¹ 4 11.90 Canada 10 ² 6 88 500 100 ¹ 2 +1 10.89	Benco Hispano 1 95 100 991 0 1114 Bankers Tr NY 1 94 200 1001 0 912 Bankers Tr NY 1 94 200 1001 0 912	World Bank 8½ 92 20 105½ -0½ 7.28 World Bank 8½ 91 20 108½ -0½ 6.98 Chg, on
Casio Computer 57, 89 80 123 0 0.01 CCCE 123, 95 75 102 +1 12.20 Citicorp 0/S 10 85 300 993, +1 10.50	Bank of Montreal 7: 94 £ 100 100 -01 135 Bank of New York 1: 96 75 994 0 115 Bge Net Paris 1: 88 250 100 1 0 812 1	LUXFR STRAIGHTS Issued Price week Yield Eur Coal & Steel 74, 88 500 96'a +0's 8.86 Eur Coal & Steel 74, 88 900 95's 0 9.22
Citicarp 0/S 10½ 90 100 94½ +1½ 11.83 Citicarp 0/S 11½ 88 100 98 +0½ 12.18 Citicarp 11½ 90 100 100½ +1½ 11.58 Citicarp 0/S 12 87 200 100½ +0¼ 11.62	Bqs Nat Paris 14 91 125 10012 + 014 1225 at 125 10012 0 95 10014 0 97 1012 1012 1012 1012 1012 1012 1012 101	Eur Coal & Steel 101, 94 1bn 1021, +01, 8,96 Eur Invest Bk 101, 94 1bn 1031, +01, 9,89 Int Bk Rec Dev 101, 89 1bn 1031, -01, 9 11
Criticorp 0/S 14 94 100 101\(\frac{1}{2}\) 0 13.69 CNCA 13\(\frac{1}{2}\) 91	Barclays 0/5 1 600 1001 0 7011 8 8BL 1 95 100 1001 0 912 Box Nat Paris 1 88 400 101 0 1071s	GUILDER Chg. on STRAIGHTS Issued Price week Yield ABN 889
Comp Bencaire 137, 90 75 105% +1 12.31 Compat 12% 91	BFCE 1 87	ABN 8½ 88
Dart and Kraft 74 98 85 9474 - 114 8.39 Denmark 114 90 100 994 + 114 11.83 Denmark 124 92 250 10074 + 674 12.53	BFCE 1 99 50 1001 1001 + 01 1014 1376 1014 1014 1014 1014 1014 1014 1014 101	Bk Moes & Hope 81, 89 100 1021, +04, 7.59 Beatrice Foods 81, 89 100 1077, 0 7.70 C C Rabo 8 89 150 7013, -01, 7.51 C C Rabo 9 88 100 1041, -01, 7.48
Denmark 13's 92	Caissa Nat Tel 1 97 250 100 0 91 1 Credit Ivon 1 96 150 100 0 97 0	Denmark 8', 91 100 102's -0's 8.04 Int Stand Elec 8', 89 100 102's -0's 7.57 New Midd Bank 9 88 100 104's +0's 7.44
Du Pont Canada 13½ 91 65 104½ +0½ 12.41 Digital Equip 11½ 89 150 101½ +0½ 11.24 Dutch St Mines 11½ 91 150 98½ +1½ 11.73	Cred Rational 1 35 150 100 0 10 b Dai-lichi Kangyo 1 96 150 100 0 5 5 b Denmark 2 90 250 100 0 5 5 b	New Zesland 8½ 89 100 102½ -0½ 7.63 CANADIAN DOLLAR Chg. on STRAIGHTS Issued Price week Yield
Exsportinans 11½ 90 100 99½ +1½ 11.62 Elec de Trance 93 86 100 99% +0½ 10.03 Elec de France 10 88 125 97% +1½ 10.98 Elec de France 11½ 93 100 96% +1½ 11.77	Denmark 3 90 500 10013 +03 1112 Dresdner Bank 3 33 600 10013 +03 1112 Eldorado Nuke 0 89 100 1003 +03 95	Br Col Prov 12 93 100 102% +3% 11.46 Bga L'indosuez 14 91 75 105 +2 12.76 Br Col Munic 13½ 91 100 105½ +1% 12.16
Elec de France 112, 80 100 98% +1% 11.68 Elec de France 122, 87 150 103% +0% 11.02 EEC 103, 95	Elec da France 1 99 400 1001 + 0's 10 10 10 10 10 10 10 10 10 10 10 10 10	Br Coi Tele 12 ¹ , 89 70 100 ¹ , +2 12.12 Farm Cred Corp 12 ¹ , 90 75 703 ¹ , +1 ¹ , 11.28 Int 8k Rec Dev 12 ¹ , 90 75 103 ¹ , +2 11.28 Montreal City 12 ¹ , 91 50 103 ¹ , +2 11.35
EEC 11 95	Exterior Intl 1 99 125 897 + 04 1074 Ferro del Stat 1 99 250 1004 + 04 1074 Ferro del Stat 2 99 100 994 0 974	Quebec Hydro 14 91 75 1061, +0% 12.27 Chg. on ECU STRAIGHTS Issued Price week Yield
Euro Inv Bk 11½ 90 200 99½ +1¼ 11.53 Euro Inv Bk 11½ 91 73 97½ +1 12.22 Euro Inv Bk 11½ 83 150 101 +2 11.65	First Aust Bank 1, 92 50 594 10 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Australia & NZ 10½ 91 50 103½ +0½ 9.91 Cesterreich 10½ 93 100 106½ 0 9.41 Cred National 11½ 91 50 106½ +0% 2,78
EDC 97-86	Genfinance 1, 92 100 1001 0 914 0 914 GZB 1, 91 40 1001 0 914 GZB 1, 91 50 1001 0 914	Denmark 10% 91 75 104% 0 3.52 Ebco Intni 10% 89 55 104% 0 9.52 EEC 10% 91
EDC 10 88	Gotabankan 1 94 50 9974 +074 1074 GW O/S Fin 1 94 100 9874 0 1074 Grindlawa 1 94 100 10074 0 874	EEC 11 93
EDC 113, 87	Interfirst Tex 1 89 100 972 6 954	Euro Invest 8k 10% 89 50 197% 0 8.15 Euro Invest 8k 10% 94 100 105% -0% 9.65 Euro Invest 8k 11% 92 75 106% 0 8.76
Fatm Cred Cpn 11 ² ₃ 93 75 99 ² ₂ +0 ² ₃ 11.59 Finland 9 ² ₂ 87	Int Bk Rec Dev 22 89 250 98% 0 8% 1 relend 3 93 £	Euro Invest Bk 11½ 93 50 105% - 0½ 3.96 Euro Invest Bk 11½ 95 50 105% - 0½ 10.31 Gen Finance 11 90 70 105% + 0½ 9.54 Gts Finance 10½ 92 50 107% + 0½ 9.41
Finland 11½ 88 100 101½ +1½ 10.96 Finland 15½ 87 75 107½ +07, 10.94 Finnish Export 12½ 87 75 103½ +0¾ 10.97	Kleinwort Ben 1, 95 100 1001 0 9316 Lloyde Eurofin 1, 92 180 1001 0 9316 Majaysia 1, 93	Gte Finance 10 ² ; 92 50 107 ² ; +0 ² ; 9.41 Int Bk Rec Dev 11, 93 50 106 ² ; 0 8.55 Int Bk Rec Dev 11, 93 50 106 ² ; +0 ² ; 8.89 Italian Traes 11 ² ; 90 60 105 -0 ² ; 10.24
Florida Fed 12% 89 100 100% +0% 12.07 G. E. Credit 96 600 22% +0% 17.81 General Elec 9% 91 100 33% +1% 11.28	Marine Midland 1, 96 125 100 9 91, Megal Fin 1, 94 CU 100 99 -01, 91, Megal Fin 1, 94 CU 100 99 -01, 91, 100, 100, 100, 100, 100, 100, 10	Megal Finance 11 ² , 94 100 103 ² , +0 ² , 19.85 Nippon Crad Bk 11 91 50 106 ² , -0 ² , 9.69 Nordic Inv 6 94 50 106 ² , +0 ³ , 10.24
Gen Motors Ac 113, 90 100 1004, +1 11.33 Gen Motors Ac 113, 90 100 1004, +1 11.30 Gen Motors Ac 123, 86 200 1007, 0 11.27	Midland Intl 0 91 150 100% -0% 11 Midland Intl % 99 200 100% +0% 10% Midland Intl % 98 100 100% 0 10%	Post Och Kred 10% 92 50 101% +0% 10.48 Royal Bk Can 10% 89 85 107% +0% 8.27 SNCI 10% 94
GEN Motors Ac 13 88 200 1021 +01 10.82 GZB 14 91 10.82 10774 +1 12.23 GIro Vienna 131 91 75 1032 +114 12.38 GTE Finance 12 98 75 1005 +01 11.97	Morgan Granfell 1 ₈ 94 50 9934 - 013 9 Mtg Bk Dnmrk 1 ₈ 94 £ 50 10014 + 013 1314 Nat Bk Canada 1 ₈ 91 50 100 0 914	West LB 10% 91 50 106% +0% 9.27 AUSTRALIAN DOLLAR Chg. on
Gulf Oil 10% 94	Nat West Fin 0 91 125 100°s 0°s 9°44 1 Nat West Bank 1, 92 100 101°s 0 10°s Nat West Bank 1, 98 100 100°s 0 10°s	AIDC 12½ 90
IBM Credit 13's 87 100 102's 6 12.96 iBM 12's 92 200 104's +1's 11.22 iC industries 11's 98 75 98's +0's 12.08	Nat West Fin 1 385 1003 103 103 103 103 103 103 103 103 103 103	PIBA 121 83 50 95% 0 13.78 State Bk NSW 121 89 40 96% -31 73.57 State Aust 133 87 24 95% +01 13.74
Ind Bk Japan 11% 91 100 100% +0% 11.57 Ind Bk Japan 13% 91 125 708% +0% 11.86 IADS 12% 93 120 101% +1% 12.24	Nippon Crad Bk ½ 90 50 100½ - 0½ 9½ Oster in Bk ½ 99 100 100½ + 0½ 9½	STERLING Chg. on STRAIGHTS Issued Price week Yield 12 13 14 15 15 15 15 15 15 15
Int Bk Rc Dv 114 90 200 994 + 14 11.43 Int Bk Rc Dv 12 93 200 1013 + 12 17.86 Int Paper 12 91	Offshore Min 3, 91 150 100% 0 933, Oko Bank 3, 92 50 994 0 972 Pirelli Fin 3, 94 50 994 + 113, 104 Portugal 1, 92 100 994 + 13, 2 75	EEC 11½ 94
Int Stand Elec 97 112 223 +01 13.28 Int Stand Elec 12 98 75 961 +01 12.85 ITT 111 98	Quebac Hydro 1 ₂ 94 200 1001 ₅ 0 91 ₆ Queensland Cosl 1 ₈ 96 355 1001 ₆ 0 101 ₆ Queensland Cosl 1 ₈ 85 46 1001 ₆ + 10 ₈ 101 ₈	FFI 10% 93
Japan Dav Bk 11½ 91 100 107½ +0% 11.94 Kyowa Fin HK 12½ 90 100 103 +1½ 12.04 Long Tarm Cred 10½ 90 100 96½ +1½ 11.71	Rente 1 91	Int Stand Elec 11½ 89 50 100% +0½ 10.79 inv in Indust 11½ 81 50 102% 0 10.84 ireland 11½ 94 50 96½ +1 11.98
Long Term Cred 117, 89 199 1001 + 03, 11.62 Long Term Cred 12 93 100 102 + 03, 11.59 Long Term Cred 121, 90 85 1001 11.59	Scot Intl Fin 3, 92 100 10032 0 1034 SEAT 3 93 100 10034 1 374 SEADAR 3 94 74 994 +074 872	New Zesland 104, 89 100 97 +01, 11.59 SNCF 111, 94 80 98 +01, 11.62 SNCF 111, 89 30 1001, +01, 11.31
McDonelds Fin 115 91 100 99% +1 11.75 McDonelds Fin 115 94 75 97% +0% 12.01 Minebes 65 89 100 113 0 2.67	SNCF % 83 £	EQUITY Expiry Chg. on date Price week Prem. Commerzbank 31/5/88 43 0 28.32 Cibs-Gelgy Int £ 1/11/93 265 0 161.85
Mitsublishi Cp 121, 91 100 1051, +1 17,22 Mitsub Gas Ch 67, 89 50 94 0 8,73 Mitsub Eng 74, 88 50 92 0 10,02	Spain 1, 93	C Itoh
Montreal City 12 ¹ / ₂ 91 70 18 ¹ / ₂ + 1 ¹ / ₂ 11.70 Montreal Urban 12 90 76 100 +0 ¹ / ₂ 11.76	Standard Chart 1: 91 100 1004 0 1004 Standard Chart 1: 94 200 1004 0 97. Supplement Tex 1: 94 100 1001 +014 04.	Deutsche Benk DM 18/8/91 141 0 2.92 ICI Finance 1/8/90 346 ¹ 2 - 5 222.77 IC Industries 15/8/88 17 - 05 - 12 38
Mount Isa Fin 134 87 100 1034 +04 11.95 Ned Gasunie 114 90 75 994 +14 11.40 Ned Gasunie 114 91 75 994 +1 11 57	Sweden 1, 85 150 1075, 0 812, 1 Sweden 1, 03 15n 1001, 0 1074, 1 1074, 1 182, 1	Jusco
Newfoundland 13 91 75 1024 +1 12.41 Nippon Crd 8k 137 89 100 1064 +1 12.41 Nippon Tel Tel 1314 90 100 1005 +03 11.21 Nippon Tel Tel 131 84 150 1065 0 12.19	Tokel Asia 's 89 150 100% of 100% Toyo Tat Asia 's 99 100 100% of 100%	Mitsubishi Cp 7/11/88 12% 0 19.82 9 Mitsubishi Cp
Nieshi-lwai 63 89 70 873 0 10.54 Nomure 63 88 100 1394 0 -3.91 Nordic Inv 8k 113 90 75 534 +13 11.90	Union Bank-Norw & 99 50 cen +m. 4m. 4m. Wella Fargo & 96 50 ce -nº, 4º Villiams & Glyns & 91 75 1nn², 0 1n², Vortshire int & 94 £ 75 1nn n 172.	Nissho Iwal
Nova Scota 114, 98 100 984 +11, 11.99 Cester Post 124, 89 75 102 +2 11.60 Chbayashi-Gumi 74, 89 50 119 0 2.67	CONVERTIBLE Chg. on BOADS Issued Price week Prang.	Prinips Glosi 15/7/88 15 0 16,20 Prudential O/S 15/12/88 100 0 804,09 Segram Comp 15/9/88 11½ -0½ -24.48
Ontario Hydro 11% 90 200 102% +1% 11.08 Ontario 12% 94 250 104% +1% 12.04 Pacific Gas & El 12 91 75 99% +0% 17 16	Ainomoto 5½ 96 40 133½ +9½ 5.44 Best Danki 5½ 97 15 131 +1 -8.55 Brigstna Tina 5½ 96 70 100½ -1½ -2.47 Canon 6½ 94 80 259 -16 -2.31	Stemens Wate DM 31/5/90 262 0 -3.34 Sumitomo Cone 24/3/89 434 0 45.54 Sumitomo Heavy 24/2/89 304 0 -0 07
Penney J. C. 114 90 100 1004 + 14 11.61 Penney J. C. 124 91 100 1034 + 04 11.67 Philips Petrol 14 89 200 1024 + 04 13.23	Canon 61 95	Swiss 8k Corp 20/12/88 284 0 17.53 Tokyo Electric 14/3/89 104 0 40.26 Tokyo Sanyo 8/6/87 1394 0 65.33 Toray Ind 5/3/87 131 -04 8.04
Post-Och Kred 131, 87 50 1033 +01 17.54 Post-Och Kred 131, 87 150 1032 +01 10.88 Quebec Prov 121, 93 100 102 +11 12 00	Bow Vallay 8 95	Veba Int 15/12/93 40 ¹ 2 0 26.96 BOND Expiry Chg. on Ex.
Quebec Prov 13 13 100 1037, +2 12.89 RTZ 11% 93 100 96% +0% 12.50	Elektrowatt 5 88 52 824 +04 -0.07 Fanuc 34 98 80 161 -14 34.87	Aegon Ins 11% 91 14/2/88 13% -0% 8.42 ANR Fin 15% 89 15/9/2/7 30 -40 5.45 Cocs-Cols 11% 91 28/11/88
Royal Bk Scot 11 ² , 93 75 964 +3 12.68 Rural Bk Aust 12 91 50 984 0 12.13 Sanwa Int-Fin 12 ³ , 90 80 101 ² , +0 ² , 11.63 Saskatenewsn 10 ³ , 90 125 97 ³ , +1 ³ , 11.36	Fujitsu 3 99	Danmark 11½ 93 15/12/88 15 -7½ 9.45 DNorsk Cr 11½ 91 1/2/88 16 +6 9.65
Saskatchewan 11 ² 89 100 102 +1 ¹ 11.25 Saskatchewan 15 92 150 714 ¹ +1 ¹ 11.85 Saskatchewan 16 89 125 113 ¹ +0.3 11.87	Most-Hennessy 7 99 50 104 +11, 4.04 Murata Mfg 31, 99 100 1071, -21, 21.43	Du Port 13's 89 25/8/88 50 -13 1-16 Du Port 13's 89 25/8/88 40's -12's 2-63 Eksportfines 13's 89 15/9/87 45 +1's 1.80
Scot Int Fin 143, 96 60 107 +11, 13.01 Sears O/S Fin 98 500 223 +11, 11.87	Nippon Oil 34 98 50 88% +5% 12.36 One Pharm 34 98 60 114 +6 -3.67 Soc Gen Surv 47 94 51 84 -1 117.60	IBM Credit 13 87 19/8/85 363, +11, -3.06 inv in inds 101, 91 1/12/88 621, 0 1.36
Sears Roebuck 11% 91 150 100% +1% 11.46 Sec Pacific 12 82 100 100% +1 11.87 Shearson/Amex 12% 94 100 88% +2% 12.23	Sumitomo Corp 2% 99 70 94% -3% -1.61 Taxaco Capital 11% 94 1bm 101% +1% 40.97 Toxaco Caital 11% 94 800 101% +1% 40.45 Usair Financa 7 98 50 102% -0% 8.46	McConlds F 114 94 5/1/89 197 -14 7.88 Morgan J P 104 90 16/8/87 10 -5 9.13 Nordec Inv Bk 11 90 18/11/87 8 0 11.44
Shell (Canada) 14% 92 125 103% +1 12.28 Shell (Canada) 15% 91 100 111% +0% 12.89 Standard Chart 11% 94 200 100 0 11.48	Yamanouchi 4 90 50 268 +8 0.61	Penny J C 107: 90 15/10/87 80 + 1% 2.68 Post-O Kred 11% 90 15/11/87 82 - 5 8.64 Post-O Kred 11% 90 15/11/87 9 + 0% 9.80
Statoli 12 88	YEN STRAIGHTS laused Price week Yield Asian Dev 8k 5\(\frac{1}{2}\) 88 15 96\(\frac{1}{2}\) +0\(\frac{1}{2}\) 6.84 Asian Dev 8k 7\(\frac{1}{2}\) 84 15 101\(\frac{1}{2}\) -0\(\frac{1}{2}\) 7.17 Asian Dev 8k 8\(\frac{1}{2}\) 91 15 106\(\frac{1}{2}\) +0\(\frac{1}{2}\) 7.35	18x2co 10 ² - 53 15/11/87 8 +0 ¹ - 3.99 Téxaco Cap 12 ² - 92 1/8/87 35 +1 ¹ - 6.27 Thman-Brdt 13 ³ - 51 29/8/88 291 +1 ¹ - 6.27
Swedish Export 11 ¹ / ₂ 89 100 100% +1 ¹ / ₂ 11.28 Talyo Kobe 12 90 100 101 ¹ / ₂ +1 ¹ / ₄ 11.68	Asian Dev Bk 85 92 15 105 + 07 7.58	Weyerheaser 11 90 15/11/87 9 +012 9.69 Xerox 134 87 15/8/85 304 +34 -0.61





season of temporary discontent is the Now i

kept pace with the radical changes in office technology.

The consequences can be fairly dire. Unskilled hands running rampant over equipment that requires the most specific of skills.

Perish the thought.

being lured away to the world's sun spots.
Which can leave you in an even higger spot.
Turning to a temporary help agency doesn't

season sees your staff

Yet again the holiday

Manpower can supply temporary staff almons as quickly as it takes to pick up a holiday brochure.

We also match our people's skills to yo Happily, there is another side to the coin

ability to react quickly enough, leaving you with non-functioning jobs and machines.

To compound the problem, they just haven't

They tend to have neither the staff nor the

necessarily help.

almost

equipment. This is done via our technique called Skillware.

with our own recorded diskettes. and the proficiency that you need.

The Manpower temporary then arrives perfectly matched and equipped for your business equipment.

As further proof of our thoroughness we crosstrain operators from one system to others. We identify exactly the level of both the skill

For VDU operators our Data Entry Programme Manpower temporary is, you know you'll suffer no discontent. offers the same happy matching of skills.

So whatever the season and whoever

ligh Street, Slough SLI II J. 73111.

And new operators are trained to basic level

UK COMPANY NEWS

RECENT ISSUES

EQUITIES



U.S.\$125,000,000

THE MORTGAGE BANK AND

FINANCIAL ADMINISTRATION AGENCY
OF THE KINGDOM OF DENMARK

(Kongeriget Danmarks Hypotekbank og Finansforvaltning)
Guaranteed Floating Rate Notes due 1999 Series 95
Redeemable at the Noteholders' Option in 1996
unconditionally guaranteed by
THE KINGDOM OF DENMARK

Notice is bereby given that the Rate of Interest for the first

Notice is hereby given that the Rate of interest for the first one-month sub-period has been fixed at 9.6% p.a. and that the interest payable for the first one-month sub-period in respect of US\$10,000 nominal of the notes will be US\$76.56. This amount will accrue towards the interest payment due

April 15, 1985, London By: Citibank N.A. (CSSI Dept), Agent Bank CITIBANCO

Istituto per lo Sviluppo Economico dell'Italia Meridionale

(A statutory body of the Republic of Italy incorporated under Law 298 of April 11, 1953)

Sveimer

Floating Rate Notes due 1990

(Redeemable at Noteholder's Option in October 1988) Notice is hereby given that the Rate of Interest has been fixed at 1711/16% per annum and that the interest payable on the relevant Interest Payment Date, October 15, 1985, against Coupon No. 4 in respect of U.S.\$10,000 nominal of the Notes will be U.S.\$492.45.

April 15, 1985, Landon By: Citibank, N.A. (CSSI Dept.), Agent Bank

Ford and **Talbot** reject Banro claim

By Martin Dickson

C. H. Industrials, which naking a contested takeover bid for car components manufacturer Banro, said yesterday that both Ford and Talbot had disassociated themselves from a Banro claim that the company's customers did not support CHI.

CHI's statement is a counter-plast to a controversial defence document issued by Banro last week in which it quoted three major Banro customers—Ford, Talbot and Toshiba—voicing concern about a possible take-

over.

Mr Tim Hearley, CHI's chairman, said yesterday that he had agreed a joint statement with Ford and Talbot on the issue.

This quoted Mr Alan Spencer, director of supply for Ford Europe, as saying: "I did not know the context in which my letter would be used. There is no suggestion we could not work with CHI as the new owners."

Mr Gordon Kennedy, director of purchasing for Talbot, was quoted as saying that he was "most unhappy with the misleading juxtaposition of my letter with the banner headline in the Banro document."

Fixed offer at 100p puts £20m value on Prestwick

The offer values the company

In the share offer are 2.25m shares owned by existing shareholders, including 885,000 owned by members of the board and the

by members of the board and the families. Many of the existing shareholders are institutions, with a strong contingent from north of the border.

The Scottish Development Association and Melville Street Investments (Edinburgh) are among those selling approximately one-third each of their stakes as part of the floiation.

Prestwick Circuits, the group's main operating company, is one of Europe's largest manufacturers of printed circuit boards (PCBs). Its products are used by many well-known names in the computer and electronic goods industries, including telecommunications equipment, automotive engine management systems telections word now motive engine management systems, televisions, word pro-cessors, photo-copiers, as well as computers themselves.

Of the three kinds of PCBs

Prestwick Holdings, the Scottish in general use the group makes printed circuit board manufacturer, is coming on to the market through a fixed price offer of 7.25m shares (about 36 per cent of the equity) at 100p each.

The offer values the company a volume manufacturer of components rather than a contact of the state of the produces a gross yield of 3 per cent.

The brokers to the issue are fielding, Newson-Smith and Co. The offer for sale is being underwritten by charterhouse Japhet.

niche supplier.

Over the last five years, Prestwicke's pre-tax profits have risen from £566.000 to £1.12m for the year ended July 31 1984, although the pattern has not been one of steady growth, due to the need to intensify capital investment in order to reduce costs.

In the UK, 1982 was an especially difficult year, with profits cut to £67,000, despite a modest rise in sales. In the U.S. the subsidiary USW has had a very mixed record since it was first acquired in 1978, sales have been erratic and in four of the last five years it has contributed a pre-tax loss—although in the salest full year a £57,000 contribution.

Prestwick know that they are not coming to the market at the best possible time for a components supplier to the electronics industry. However, strong support from the Scottish lobby plus a good record to date will almost certainly see that the fixed price offer will be well subscribed. In the longer term the company will have to tread a careful path between retaining enough profits to finance increasingly expensive capital investments without

first acquired in 1978, sales have been erratic and in four of the last five years it has contributed a pre-tax loss—although in the last full year a £57,000 contribution to group pre-tax profits was a made.

For the year to July 31 1885, Prestwick is forecasting pre-tax profits of at least £1.8m, which to an estimated tax charge of 32 per cent will produce earnings per share of 7.4p and a prospective multiple of 13.5. The assumed annual dividend of 2.1p to finance increasingly expensive capital investments without making shareholders too unhappy over payouts on the one hand and not becoming so successful at garnering value decide to switch printed circuit board production inhouse on the other. With a prospective p/e of 13 for a company whose future success is so closely bound up with the fortunes of others, the question is inevitably—isn't this

Assoc. Steet Dist.*1 170 +2 1 H875 10p 70 1 H875 10p 70 1 H8860rd William 5p 175 Blagden Inds. 2Crown Int'l.Prod 10p 70 Cullen's Hidgs 10p 135 German Small. Wrrts. 40 Milledown Hidgs 10p 155 Huldaw Thomson 81 Mann 30p 170 Mayhew Foods 10p 130 Mew London Oil 5p 200 -8 Pacific Assets 7st.54p 75 Do. Ser. 1 Warrants 41 P.50. Warrants 45 P.Pac Warrants 45 Pape 10p 10s 155 FPape 10p 10s 155 FREA Warrants 80 Scangers 94 Skorrock 10p. 91 -1 #Sims Catering 6p 145 FS \$155 F.P. 9:5 172 \$185 F.P. 19:4 79 \$185 F.P. 5:5 226 \$112.30 F.P. 17:5 115 \$60 F.P. 6:4 88 || || F.P. - 127 \$145 F.P. 16:5 180 \$22 F.P. 5:5 86 \$145 F.P. 26:4 172 \$100 F.P. 12:4 150 \$175 F.P. 15:6 210 \$175 F.P. 15:6 210 \$100 F.P. 12:4 172 \$100 F.P. 15:6 210 \$175 F.P. 26:4 172 \$100 F.P. 15:6 210 \$175 F.P. 26:4 95 \$110 F.P. 16:5 92 \$128 F.P. 11:4 165 \$175 F.P. 8:5 175

FIXED INTEREST STOCKS

uto I								
ive out too	Issue : price :	Amount paid up	Latest Renung, date	<u></u>	¢/85	Stock	Closing price L	+ or
so ue ers uit he of ure up	\$5.81 £	10 F.P. F.P. 30	26/4 26/4 12/7	111 :	24 12 995 93 105	Felixatowe Dock Prf. Units 1	100 ₁ } 95 106	. se

RIGHTS OFFERS

isaue price	nount lid up	Renunc.			Stock	Closing	; +°
) brice	₹ E	and and	High	Low			٠
82 60	! NH NH	31,5	19pm 12pm	1100	Aaronson Bros. 10p		!
150 142	Nil	14/6	. 222pm		Barolays £1	183pm _19pm	·
178	NII N	15/5	. 17pm	1500	Bespak 10p	ווומלימנ	+5
65 38	lin	17:5 16:5	223pm	612011	FKI Electricals 10p	61 ₂ pm	. + 2
245 238	F.P.	. 31:5 10:5	323 ; 35pm		Glass Glover 5p	20pm	
70 66	F.P.		76 4pm	65 300	· Mitchell Cotts · · · ·	apm	
185	Nij	14/6	18lenm	1000	Morgan Crucible	, 11pm	
A\$0.8	NII	. 10/5	9pm	7011	rRyan Inti, 5p	9pm	
190	F.P.	31/5 19/4	204 356	721	Trafaigar House 20p	335	
156 240	F.P. F.P.		178 / 268	168	:United Biscuits	249	
280	MII		100pm	97pm	Woistenholme Rink	1 nobiu	

Renunciation date usually last day for dealing free of stamp duty. b Figures based on prospectus estimates. d Dividend rate poid or payable on part of capital, cover based on dividend on full capital. g Assumed dividend and yield, u Forecast dividend cover based on prospectus or other official estimates for 1985. N Dividend and yield based on prospectus or other official estimates for 1985. N Dividend and yield based on prospectus or other official estimates for 1985. N Dividend and yield based on prospectus or other official estimates for 1985. N Dividend and yield based on prospectus or other official estimates for 1985. N Dividend and yield based on prospectus or other official estimates for 1985. N Dividend and yield based in connection with reorganization. S Reintroduced. It issued in connection with reorganization merger or takeover. Market. S Placing price. T Figures assumed. If Official London Usting. The Deat in under Rule 585(3). 1 Comprising 100 Pri and one Ptg. share. o Figures or report awaited. It Units comprising 5 Ord., 1 Werrant and £2.50 nominal of conv. stock.

A change of name in London...

CITIBANG

Seligmann, Rayner & Co. announce that with effect from today they will be trading as

SELIGMANN, HARRIS & CO.

Members of The Stock Exchange

Friendly House, 21-24 Chiswell Street, London EC1Y 4TU Telephone 01-606 2394, 01-638 6601 Telex 8812214 Fax 01-628 0792

...and a change of address in New York

SELIGMANN, HARRIS & CO., INC. Members New York Stock Exchange Inc.

One State Street Plaza, New York, N.Y. 10004

Telephone (212) 483 0878 Telex 422868 Fax (212) 425 9858

This advertisement is issued in compliance with the requirements of the Council of The Stock Exchange.

Norscot Hotels Plc

Share capital

Ordinary shares of 50p each

5.6 per cent. Cumulative Redeemable

Preference shares 1990 of £1 each

Placing by

Hambros Bank Limited

of 1,800,000 Ordinary shares of 50p each at 113p per share

Application has been made for the grant of permission to deal in the Unlisted Securities Market on The Stock Exchange in the above-mentioned Ordinary shares. It is emphasised that no application has been made for the above-mentioned

securities to be admitted to listing. The Ordinary shares have been offered to and are available through the market. Particulars of the Company are available in the

L. Messel & Co.,

! Finsbury Avenue,

London EC2M 2QE

FINANCIAL TIMES STOCK INDICES

Extel Unlisted Securities Market Service and copies of such particulars may be

obtained during usual business hours on any weekday (Saturdays and Public

Holidays excepted) up to and including 25th April, 1985 from:

81.04

Hambros Bank Limited,

61,40

81.21

41 Bishopsgate,

Covernment Secs.

London EC2P 2AA

Authorised

£3,500,000

£1,000,000

£4,500,000

Issued and now being

Stirling Hendry & Co.,

16 Royal Exchange Square,

75.72 127,4

49.18

Glasgow GI 3AD

83.77

issued and fully paid

£2,860,000

£ 587,600

£3,447,600

UDO's £2.8m **Scottish** acquisition

REFLECTING the continuing benefits of the planning and development carried out over a number of years, pre-tax profits of UDO Holdings, supplier of equipment and a complete reprographic service to architects, draughtsmen and designers, expanded by 73 per cent to \$550,000 for the six months anded January 31, 1985 against ended January 31, 1985, against £318,000.

f318.000.

The directors of this USM concern which came to the market last October, also announce a £2.76m acquisition of Sime Malloch, the largest supplier of drawing office equipment of materials. ment and materials, reprographic services and supplies in Scot-land. The consideration will be in shares and £800,000 cash.

Although directors do not anticipate maintaining the rate of profit growth achieved in the

of profit growth achieved in the first six months, they will continue to build on the inherent strength of the group, and look forward to the second six months with confidence.

For the 1984 year turnover and pre-tax profits of Sime were 16.16m and £801.000 respectively. The directors say that Sime's results will be consolidated with those of UDO with effect from the date of acquisition, the intethe date of acquisition, the inte-gration of the two businesses

gration of the two businesses considerably increasing the size of the group.

Pro-forma pre-tax profits of the enlarged UDO concern, including Sime, based on accounts for the year ended January 31, 1985 and Sime accounts for 1984, would have been £1.84m, on sales of £16.12m. Pro-forma net tangible assets are £2.91m. assets are £2.91m.
Interim figures for UDO show turnover of £5.05m (£4.23m) and earnings per share of 5.82p (3.34p) after tax £238.000

(5153,000).
There is an interim dividend payable of 1.25p net per share.

Share Stakes

Changes in company share stakes announced over the past

stakes announced over the past week include:

CPS Computer Group: on April 10 directors disposed of the following ordinary shares:

Mr J. S. Sewell 489,320 beneficial and 50,000 non-beneficial respectively, Mr R. D. Bridgwater 489,320 and 50,000, and Mr M. P. Harper 159,995 and 18,365. The shares were all sold at 117360 shares were all sold at 11734p per share. In addition Mr E. Robbins, a former director, sold 593,000 ordinary shares at that

Valin Pollen Intl: Mr Jonathon
Davies has reduced his shareholding from 300,000 ordinary
(7.1 per cent) to 250,000 ordinary (5.9 per cent).
Star Computer Group: Mr
M. D. Blechner. a director, purchased 30,00 shares at 45p per
share on March 26 and 10,000
shares at 52p per share on
April 9.
Raine Industries: Suter has increased its interest from 6.2 per
cent to 7.44 per cent.
Ratners (Jewellers)—Mr T.
Jordan, a director, has disposed
of 100,000 ordinary shares in
company on April 9 reducing his
holding to 2.4m (7.3 per cent). Valin Pollen Inti: Mr Jonathon

THE MORTGAGE BANK AND FINANCIAL ADMINISTRATION ACENCY OF THE KINGDOM OF DENMARK

£50,000,000 Guaranteed Floating Rate Notes Due 1994 Series 91 Unconditionally guaranteed by THE KINGDOM OF DENMARK

In accordance with the terms and conditions of the Notes, notice is hereby grean that for the three months interest period from 9th April 1985 the Notes will carry a rate of interest of 13% per annum. The relevant Interest Payment. Data will be (th. July 1985, The Coupon Amount per £3,000 will be £189 07 aparble against Surrender of Coupon No 6.

Hambros Bank Limited

Agent Bank

LADBROKE INDEX 966-970 (+10) Based on FT Index Tel: 01-427 4411

Huntleigh Technology in £1.6m USM placing

BY WILLIAM DAWKINS

Huntleigh Technology, a maker of low-cost medical equipment, electronic switches and load cells. will shortly join the Unlisted Securities Market. A full prospectus will be pub-lished next week, but the indicalished next week, but the indications are that the group will be raising about £1.6m from a placing of new shares arranged by stockbrokers Laing and Cruickshank. Of that total, £1.3m will be used to repay loan stock issued to the directors to finance the purchase of the non-defence interests of the Huntleigh Group after its takeover in 1983 by Fight Refuelling, the full-listed aircraft and defence components manufacturer. The About 15 per cent of the

About 15 per cent of the enlarged equity is being placed, leaving the rest with the directors and employees. A total market value of up to £13m is

Mr Rolf Schild, whose wife and daughter were kidnapped in Sar dinia in 1979, is the chairman, and his deputy is Mr Peter Epstein. They were both major shareholders in the old Hunt-

Pre-tax profits rose from £167,000 to £710,000 in the year to last December on sales up from £4.5m to £6.7m. The historic f4.5m to 16.7m. The historic earnings multiple is expected to be between 22 and 24 after a 24.5 per cent tax charge, with an anticipated yield of 1.5 per

Losses in the three years to 1982 fluctuated from £362,000 to £99,000 to £156,000, chiefly because of sterling's strength against the dollar—a third of group sales go to the U.S.—and high interest rates. The group exports 70 per cent of its turnover

Scandinavian Finance B.V.

U.S.\$60,000,000 Floating Rate Serial Notes due 1993

Guaranteed on a subordinated basis by

Scandinavian Bank Limited

For the six months

15th April, 1985 to 15th October, 1985 In accordance with the provisions of the Notes, notice is hereby given that the rate of interest has been fixed at 911/10 per cent and that the interest payable on the relevant interest payment date, 15th October, 1985 against Coupon No. 5 will be US\$492.45 per Note.

Agent Bank: Morgan Guaranty Trust Company of New York

Granville & Co. Limited

8 Lovat Lane London EC3R 8ET Over-the-Counter Market Change Gross Yield Capitalisam.

£0000's	Company	Price :	on week	div.(p	1 %	Actual	laxed
4.879	Ass. Brit. Ind. Ord	143	+1	6.6	4.4	7.9	8.5
_	Ass. Brit. Ind. CULS	143	+1	10.0	6.7	_	_
3,300	Airaprung Group	57	_	6.4	11.2	6.3	7.5
850	Armitage and Rhodes	34	_	2.9	8.5	4.2	7.0
44.883	Bardon Hill	144	_	34	2.4	14.5	24.2
2,915	Bray Technologies	53xc	§ −1	3.9	7.4	6.5	7.5
7,970	CCL Ordinary	170	_	12.D	7.1	_	_
_	CCL 11pc Conv. Pref.	110	_	15.7	13.8	_	_
8.756	Carborundum Ord	1025	+26	5.7	0.6	_	_
_	Carborundum 7.5oc Pf.	88	_	10.7	122	_	_
3,991	Deborah Services	51	-1	6.5	127	4.9	7.8
20,176	Frank Horsell	314	_	_	_	12.6	16.5
_	Frank Horsell Pr.Ord.87	268	_	9.6	3.6	10.8	14.1
3,900	Frederick Parker	27	_	_	_	_	_
1,070	George Blair	58	_	_	_	3.9	7.8
534	ind. Precision Castings	23	_	2.7	11.7		€.8
14,839	Isla Group	189	_	15.0	7.9	7.5	13.6
5,468	Jackson Group	105	+4	4.9	4.7	4.9	9.5
33,834	James Burrough	244	-ı	13.7	5.6	8.7	8.7
2,947	James Burrough SpcPt,	85	_	12.9	15.2	_	_
8,962	John Howard and Co.	86		5.0	5.8	8.8	12.5
3,620	Linguaphone Ord	210	+10	_		7.7	8.0
_	Linguaphone 10.5pc Pf.	97	_	15.0	15.6	_	-
17,694	Minihouse Holding NV	650	+10	3.8	0.6	46.8	51.2
469	Robert Jenkins,	46	÷i	5.0	10.9	_	_
1,380	Scruttons "A"	33	+1	5.7	17.3	17.4	40
1.878	Torday and Carilals	77		_	_	8.3	17.5
1.541	Trevian Holdings	340	-5	4.3	1.3	19.3	19.0
4,396	Unilock Haldings	28	+042	1.3	4.6	13.6	19.6
12,026	Walter Alexander	84	-1	7.5	8.0	9.3	11.3
5.041	W. S. Yeates	215xd	ı —	17.4	8.0	6.1	10.6
	ind details of services no	-			-		

US\$75,000,000 The Bank of New York

Overseas Finance N.V. **Guaranteed Floating Rate Subordinated** Notes due January 1996 selly Guaranteed, on a Subordinate Payment of Principal and Interest b The Bank of New York Company, Inc.

Notice is hereby given that the Rate of Interest has been fixed at 9%% p.a. and that the interest payable on the relevant Interest Payment Date, July 15, 1985, against Coupon No. 6 in respect of US\$10,000 nominal of the Notes will be US\$230.66.

April 15, 1985, London
By: Citibank, N.A. (CSSI Dept), Reference Agent CITIBANCO

PENDING DIVIDENDS

Dates when some of the more important company dividend statements may be expected in the next few weeks are given in the following table. The dates shown are those of last year's announcements except where the forthcoming board meetings (indicated thus*) have been officially notified. Dividends to be declared will not necessarily be at the amounts in the column headed "Announcement last year."

Date	Announce- seel snem rear	Date	Announce- ment last year
Akroyd and		Land	
SmithersMay 8	Interim 5.714	SecuritiesMay 17	Final 4 91
"Anglo Amer		"LaportaApr 18	Final 6.5
Invest TstApr 15	Final 440c	Marks and	
*BC)Apr 25	Final 13.0	SpencerMay 1	Final 4.2
BOCMay 10	Interim 3,15	Manzies (J.)Apr 30	Final 4.0
*BPCCApr 17	Final 6.0	MinotApr 26	
Bank of		Morgan	final 2.45
IrelandMay 17	Final 12.0		F
*Bank of	ringi 12.V	CrucibleApr 12	Final 4.0
ScottandApr 22	Final 16.5		
Вапом	FINAL 19.3	(John)May 4	Final 9 0
HepburnApr 16	Final 1.4	*NEIApr 17	Final 3.6
Bilton (P.)May 4	Final B.493	Nurdin and	.
Botish Home	F1021 0.455	PeacockApr 24	Final 2.1
StoresMay 8	Final 4.25	*RMC Apr 17	Final 7.9
Brixton Est Apr 17	Final 2.7	Rayback Apr 30	Final 0.5
CostainMay 8	Final &. /	*Rio-Tinto	
DebenhamsMay 10	Final 5.3	ZincApr 17	Final 12.0
European	rinai 9.3	Royal Bank	
FerriesMay 9	Final 2.7	ScotlandMay 10	interim 3.3
Flight	F10101 2.7	Rugby Portland	_
RefuellingApr 27	Final 1.6	ComentApr 15	Final 3.1
*Faseco	FINAL 1.0	Samuel PresApr 26	Interim 1.5
MinsepMay 1	Final 4.7	Saatchi and	
French Kier May 2	Final 5.725	SaatchiMay 1	Interim 5.64
Gerrard & Nat	FIREI 3.723	SearsMay 15	Final 1.8
DiscountMay 10	Final 9	Simon Eng May 8	Final 10
*GlaxoApr 15	Interim 4.0	*Sun Life AssApr 17	Final 10
Grand	THE WILLIAM	*TarmacApr 30	Fine: 10.0
MetropolitanMay 15	Interim 3.7	*Taylor	
Guianess	111(8/14) 2.7	WoodrowApr 18	Final 19.0
PestMay 17	Interim O.5	TootalMay 4	Final 1.4
Hall (M.)Apr 17	Final due	*Travis and	
*Hammerson	1 11121 QQE	AmoldApr 15 United	Final 8.145
PropApr 19	Fina! 12.0		
*Harria		ScientificMay 18	interim 2.0
QueenswayApr 18	Finel 4.75	WhesaosMay 14	intenm 2.5
Heath (C. E.)May 17	Finel 11.75	*Wimpey (G.)Apr 25	Final 2.2
"Hepw'th (J.)Apr 16	interim 2.25	P Royal mosting to a	
*InchespeMay 2	Final 11	* Board meeting intim	sted. † Righ
*Laing (J.) Apr 24	Final 3.75	issue since made. 4 Fo	tres. § Scr
· ————		SIII MBQ8. 1F0	receat.

United Ceramic 28% ahead

FOLLOWING an increase at the interim stage from £80,362 to £97,649, taxable profits of United Ceramic Distributors, wall and floor tile concern, finished the 1984 year ahead by 28 per cent from £159,345 to £204,461.

Turnwer of this £154,461. trom £159,345 to £204.461.
Turnover of this USM company improved to £6.94m, against £5.38m, a rise of 18 per cent.
The directors say that turnover in the first quarter of 1985 continues to show an upward trend, despite the effects of the poor weather during the early part of the year.

the year.

Mr P. S. Battin chairman says that new products launched last January have been "exceptionally well received by our customers and already figure prominently in our sales."

He noists out that a direction of the same said that a similar customers are said to the said that a similar customers are said to the said that a similar customers are said to the said that a s

He points out that a significant improvement was shown in the sale of the group's own brand products, sold under the name of Simone. "Our research has shown that these products are becoming market leaders in the larger premises.

Stocks held are now returning to the levels which are necessary to maintain the current level of tunover, they add.

In addition to the opening of the new depot at Gateshead, the Manchester depot moved into larger premises.

range of ceramic tiles on sale in the UK," the chairman states. the UK," the chairman states.

After tax charge of £58,289, compared with £21,780, earnings per share are shown as \$p\$, against 5.7p. The dividend is unchanged at 3.5p with a same-again final payment of 2.5p. After appropriations, the retained balance came through at £60,286, £651, £100. at £603,665 (£516,109).

Stocks held at the end of 1984 showed an increase over the previous year, but this was mainly because of the stocking of both the Gateshead depot and of new products for the Simone range which were to be released for the backing of sale at the beginning of 1985, the directors say. Stocks held are now returning to the levels which are necessary to maintain the current level of

BOARD MEETINGS

The tollowing companies have notified dates of board meetings to the Stock Exchange. Such meetings are usually held for the purposes of considering dividends. Official indications are not available as to whether the dividends are interims or finals and the subdivisions shown below are based mainly on last year's timetable. TODAY

TODAY
Interime: Berry Trust, Briket, Close
Brothers, Glaze, Highland Distilleries,
Scottish Metropolitan Property.
Finale: Anglo American Investment
Trust, Atlantic Computer Systems,
Fortnum and Mason, Johnsen and
Jorgensen Packaging, Lamons, MMW
Computers, Pentland Industries,
Plasmec, Runby Portland Cament,
William Sindell, Travia and Arnold.

FUTURE DATES M.T.D. (Mangula) Simpagn (S.) Scottisk American Investment Jun Finals: Finals:

Assem-Dooars

Biddle

Biddle

British Investment Trust

May 2

British Printing & Comm

Apr 17

Clarke (Clement)

First Cherlotte Assets Tet

Godwin Warren Con Systems

Apr 16

Hay (Norman)

Stewart Enterprise Investment

May 13

Western Dooars Tos

Yorkgreen Investments

Apr 28

Young and Co's Brewery

May 23

Fixed Interest. 85,58 85,4 7 85,44 85.42 85,46 / 84,45 80,43 150.4 50.53 967.8 962.5 | 956.5 | 1024.5 | 755.3 955.9 957.4 960.3 1024.5 49,4 524.8 518.0 516.2 509.3 514,4 Gold Mines . . 711,7 439,5 754,7 43.4 614.73 613.32 613.95 612.14 615.70 615.51 630.16 464.84 630.16 61.93 FT-SE100........ 1275.8 .1269.3 . 1273.1 | 1270.2 .1278.5 | 1274.8 | 1309.9 | 986.9 | 1309.9 | 986.9

80.89

UK COMPANY NEWS

financing. At December last net debt of £17im stood against shareholders' funds of just under

Brokers to the issue are Laing & Cruickshank.

roaring premium, this relatively small fixed priced offer should get off the ground with little difficulty.

Laidlaw sees

1985 recovery

Mr Mac Robertson, chairman

Mr Mac Robertson, chairman of Laidlaw Group, Ford main dealer, says that results for 1984 were satisfactory "bearing in mind the very difficult trading conditions in the first four months, when Ford withdrew incentive payments from its dealers."

Turnover of this USM company increased slightly from £75.93m to £76.18m but taxable profits

Offer for sale values Asda Property at £17.7m

BY TERRY GARRETT

cial properties.

The company was founded by Mr Manny Davidson in 1964 though it remained largely inactive until 1972 when he departed from the board of Mr Gerald Caplan's property group, London and County Securities, following disagreements with fellow directors. London and County later collapsed in the property crisis of the midseventies. Mr Davidson had joined the quoted group in 1970 when he sold a property of 2.49 per cent at the issue price.

The residential property portfolio has been valued by Allsop at over £19.4m on December 31, subject to existing tenancies. Within that, some £16.4m is in respect of tenanted flats and houses

The commercial property at over £19.4m on December 31, subject to existing tenancies. Within that, some £16.4m is in The commercial portfolio has a subject to existing tenancies.

The residential property portfolio has been valued by Allsop at 0.00 or 2.00 property crisis of the midseventies. Mr Davidson had
joined the quoted group in 1970
when he sold a substantial part
of his property business to
London and County for £2.3m.
The offer is being priced at
172p per share which puts a
value on the company of £17.7m.
Of the shares on offer, 2.8m
represent new shares, raising
£4.3m for the business. The
balance of 350,000 shares is being
sold by Mr and Mrs Davidson.
At the offer price Asda is
coming to the market on a 23
per cent discount to proforma

17.6m.
Apart from straight property
interest in D. W.
Bevan, a building company
Pre-tax profits for the company
have grown from £216,000 to
f671,000 in the years from March
1981 to 1984.
In the nine months to December 31 1985—the company has
moved on to a calendar year-end
circctors suggests this can be
annualised in a straightforward
way to suggest profits growth to
around £800,000.

DIVIDENDS

THE FULL prospectus is published today for the offer for sale of 3.15m shares in Asda Property Holdings, a small North London based company operating in both residential and commercial properties.

intends to pay small dividends to maximise capital appreciation and to date this has involved a substantial amount of debt financing. At December last net debt of £171m stood against shareholders' funds of just under £10m.

of the shares on offer, 2.8m represent new shares, raising balance of 350,000 shares is being sold by Mr and Mrs Davidson.

At the offer price Asda is coming to the market on a 23 per cent discount to pro-forma assets of 223p. The company

Clerical Medical

15 St. James's Square, SW1Y 4LQ 01-930 5474 Executive Investment Pension Plan

	Bid	Offer	Change
Cash Fund	117.9	124.2	∔0.3
Mixed Fund	145.3	153.0	-1.0
Fixed loterest Fund	121.9	129.4	-0.1
UK Equity Fund	160.3	168.8	1.5
Property Fund	111.8	120.9	+0.1
Overseas Fund	151.9	159.9	-2.8
Index Linked Fund	102.3	107.7	÷0.2
Stock Exchange Fund	117.8	124.0	-0.9
North American Fund	99.2	104.5	-2.1
Far East Fund	972	302.4	-1.2
Special Situations Fund	101.3	106.7	- 0.9
Prices 10th April 1985 Unit de	alings on	Wednes	day
Clerical Medical Managed Funds Limi	ted		
	Rid	Offer	Change
Cash Fund	145.4	145.4	

Ciericai medical Managed Funds Limi	led						
_	Bid	Offer	Change				
Cash Fund	145.4	145.4	+ 0.4				
Mixed Fund	210.9	216.2	-1.5				
Fixed Interest Fund	191.3	194.2					
UK Equity Fund	234.7	241.7	÷0.3				
Property Fund	131.2	137.1	-1.0				
Overseas Fund	227.1	238.5	-0.1				
Index Linked Fund	116.0	117.7	- 2.1				
Stock Exchange Fund	121.4	124.4	+0.2				
Prices 10th April 1985 Unit dealings on Wednesday							
Initial unit prices available on reques	t, těleph	one 0272	290566				

Confident APG on takeover trail again

On turnover almost doubled On turnover almost doubled from £4.12m to £8.21m, the restructured Allied Plant Group has produced a return to profits of £207,000, against lesses of £136.000, for 1984. The directors say that the foundation laid in the recent past gives them "great confidence" for the future.

Whatever else Asda is, it is not cheap. The offer price is pitched at a discount to assets of 23 per cent which is, more or less, in line with comparable companies such as Bradford and Warner with large residential portfolios. Also the group will still be carrying a large slab of debt. even after the offer proceeds are banked, and Mr Davidson's former involvement with London and Counties may raise a few eyebrows even though he was long gone before its collapse. However, while Asda's portfolio is not exactly prime, the managers are active dealers and the return to be made from buying tenanted properties and selling them on when vacant is not insignificant. So, while there is little reason to suppose that the shares will start trading at a rip roaring premium, this relatively small fixed priced offer should. They say that the "new-found robustness" of the operating companies, referred to in the interim statement, of this plant hire and fork lift distribution concern, was reflected in the second six months, with the annual profit generated entirely

in that period.

Following the successful acquisition of United Forktrucks, the directors say they will be looking to selective acquisitions as a means of furthering share-builder. nolders' interests.

Earnings per share were shown as 0.94p (losses 1.42p).
The improvement in results was not confined to the revenue was not confined to the revenue statement they say, but was reflected in the balance sheet which disclosed a net asset value of £3.1m against £378,000, and a substantial reduction in capital gearing to 14½ per cent of share-holders' funds.

During the year the directors point out that the forklift divi-sion showed versatility after it was caught in the first half by the miners' and dock strikes, as it moved away from more tradi-tional industries to an expand-ing and less vulnerable customer

base. The Adapta group, makes and hires reli makes and hires relocatable buildings and cabins, continued to improve its trading position. The post-acquisition integration of Ferrag took place smoothly and its profit contribution met expectations.

to £76.18m but taxable profits fell from £1.01m to £617,000.

As forecast, however, the dividend is lifted from 1.86p to 2.5p per share with a final payment of 1.4p.

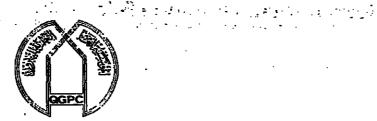
The group, he states, has made a better start to 1985 than in the previous year,
At the end of the first quarter, internal figures show pre-tax profits some £200,000 ahead of 1984.

The following securities have been added to the Share Information Service:

Beatrix Mines (Section: Mines-OFS), Cullens Holdings (Food, Groceries), Mayhew Foods (Food, Groceries), Wighew Foods (Tood, Groceries), Shires Investment 11pcConvUnsLn 2003-2004 (Investment Trusts), Sims Catering Butchers (Food, Groceries), Transamerica Corporation (Americans).

F.T. Share Information

Contracts & Tenders



QATAR GENERAL PETROLEUM CORPORATION

NORTH FIELD GAS DEVELOPMENT PROJECT

The QATAR GENERAL PETROLEUM CORPORATION (QGPC) intend to appoint a Managing Consultant for the first stage implementation of the Qatar North Field Development Project.

The project involves the staged installation of facilities required for the production, transportation and processing of more than 2,000 million SCFD of raw gas from the North Field lying offshore Qatar, with first gas to be processed on shore early in 1988. The scope will include offshore production facilities, production pipelines, onshore gas treatment and fractionation plants and gas liquids export systems. It will also include lean gas domestic distribution, injection and export facilities.

On appointment the Managing Consultant will be provided with the basic design, and will then execute the detailed engineering design, assist QGPC in procurement, and thereafter co-ordinate and supervise the fabrication, installation, construction and pre-commissioning of all facilities. The Managing Consultant will be specifically excluded from tendering for the supply of equipment and materials, for fabrication, and for any construction or site services contract.

QGPC wishes to identify companies suitable for inclusion in a bid list of tenderers for this appointment. A reimbursable form of contract is envisaged with a fixed lump sum fee element. QGPC hereby invites the submission of pre-qualification documents from major international engineering companies, who can demonstrate that they have the proven experience in the region, and the necessary managerial and technical resources to undertake a major project of similar nature

The following information should be submitted, together with any additional information considered

- Details of the company's corporate structure and the part of the organisation it is proposed would undertake this contract.
- Details of the company's financial performance, including copies of the audited accounts for the last five years.
- Details of all contracts for offshore and onshore facilities within the last ten years, which demonstrate experience and proven capabilities on projects of a similar nature and scale to the North Field Development. Information will include, but not be limited to, the scope of service, value, type and duration of the contracts, the capital cost of the projects and the manpower employed.
- Details of manpower currently available in the home office in the various managerial, technical, and project services functions.
- Outline proposals for the management of the project including such details as planning, cost control, procurement, materials management, project accounting and quality assurance
- Details of existing and anticipated commitments to other projects.

Companies who have previously submitted pre-qualification documents must submit new documentation in full. Three copies are to be delivered not later than 1400 hrs. on 14th May 1985, addressed to:-

MR. MOHAMMED N. AL-FUHAID, SECRETARY TO THE NORTH FIELD PROJECT STEERING COMMITTEE, QATAR GENERAL PETROLEUM CORPORATION, P.O. BOX 3212,

Late submission or the provision of misleading information will exclude potential bidders from all further consideration. QGPC reserves the right to make direct contact with all client references given in the pre-qualification documents. The Qatar General Petroleum Corporation shall not be hound to include any company in the bid list for this appointment. Their choice shall be final and shall not be contested or opposed by any company.

This advertisement is published by S. G. Warburg & Co. Ltd. and Citicorp International Bank Limited on behalf of Entrad Investments (U.K.) PLC.

DON'T RISK LOSING YOUR SHIRT WI **FOOTAL**

In four out of the last five years Tootal's dividends have not been covered by attributable profits.

Now they've committed themselves to a large dividend increase for 1985/86 whether or not they hit their hazardous profit forecast.

With the associated ACT it's going to cost over £10 million.

Can they really afford it on top of their £25 million capital expenditure programme?

Can they maintain it in the coming downturn of the global textile cycle?

Can they honestly say they would have promised it if they hadn't been fighting a takeover bid?

ACCEPT ENTRAD'S OFFER FOR YOUR

The Directors of Entrad Investments (U.K.) PLC (including those who have delegated detailed supervision of this ement) have taken all reasonable care to ensure that the facts stated and opinions expressed herein are fair and accurate and each of the Directors accepts responsibility accordingly

This announcement appears as a matter of record only.



Investors in Industry Group plc

unconditionally and irrevocably guaranteed by

Investors in Industry plc

U.S. \$75,000,000

Standby Revolving Underwriting Facility

Arranged by

Merrill Lynch Capital Markets

S.G. Warburg & Co. Ltd.

Managed by

Algemene Bank Nederland N.V. London Office

The Bank of Tokyo, Ltd.

Banque Paribas (London)

Credit Suisse

Drescher Bank Aktiengesellschaft London Branch

IBJ International Limited

Nomura Europe N.V.

Westdeutsche Landesbank Girozentrale

Placing Agents

Merrill Lynch Capital Markets

S.G. Warburg & Co. Ltd.

March, 1985

| Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Control | Cont 512 1314 15 44 12 6578 1512 938 2878 2114 2434 24 2878 32 BesiPet 24
BentSil 49
BentSil 74
BentSil 75
Cordin of Craft of Cr 18455745745241191846824168574571868575712614111151622228562628416151255327161416151751866744421118652457571864 644778448892285133115536449892856375175664410817657656465575175664410817556546565751756644108175566465751756644108175566465751756644108175566465751756644108175566465751756644108175566465751756644108175566465751756644108175566465751756644108175566465751756644108175566465751756644108175566465751756644108175566465751756644108175566465751756644108175566466575175664410817556646657517566466575175664410817556646657517566441081755664665751756646657517566466575175664665751756646657517566466575175664665751756646657577566466751756646675175664667517566466751756666751756666751756666751756666751756666751756666751756666751756667517566675175666756775666751756667517566675175666751756667517566675175666751756667567756667517566675175666751756667517566675175666751756667517566675175666751756667517566675175666751756675 EGG 48 EGK 7 Eaglef 1.04 EastAl wt0 EAL wt0 EAL wt0 EAR pt6 EAR pt7 EAR pt7 EASTAR 134 EASTAR 134 EASTAR 125 EAR 1.20 EASTAR 1.20 EASTAR 1.20 EASTAR 1.20 EASTAR 1.20 EASTAR 1.20 EASTAR 1.20 EAR 1.20 EAR 1.20 EAR 1.20 .80 .88 *\$20235792 \$20235792 \$402379492 \$40325796 \$4032579 \$4032579 \$4032579 \$4032579 \$4032579 \$4032579 \$4032579 \$4032579 \$4032579 \$4032579 \$403 Harson 1.28
Harris 1.28
Harris 1.80
Harris 1.84
Harris 1.84
Harris 1.84
Harris 2.84
Harris 2.84
Harris 2.82
Harris 2.82
Harris 2.82
Harris 2.82
Harris 2.82
Harris 2.82
Harris 2.83
Harris 1.80
Harris 2.84
Harris 1.60
Harris 2.85
Harris 1.60
Harris 2.85
Harris 1.60
Harris 1.60
Harris 1.75
Harris 2.80
Harris 2.80
Harris 2.80
Harris 2.80
Harris 2.80
Harris 3.84
Harris 3.84
Harris 3.84
Harris 3.84
Harris 3.86
Harris 2874 31674 3 261973315734 12111234514 12111234514 12111234514 12111234514 12111234514 12111234514 12111234514 12111234514 12111234514 12111234514 12111234514 12111234514 12111234514 1211134 12111 117-2 1994 + 14 - 18 + 18 + 18 10 15 A. CAN CONTROL OF THE CONTROL CM n
ICN pl 2.70 98
INAM 1.82 12
IPTim n
ITT pl 4 85
ITT pl 4 85
ITT pl 4 90 71
INAM 2.28 7.7 8
INAM 2.28 7.7 8
INAM 2.28 12
IPOW pl 4.90 71
INAM 2.25 12
IPOW pl 3 12
IPOW pl 3 12
IPOW pl 4 13
ITW s 6.64 13
ITW s 6.64 13
ITW s 7 6.64 13
INMM pl 2.75 12
INMM pl 2.75 12
INMM pl 2.75 13
INMM pl 2.75 11
INMM pl 2.75 12
INMM pl 2.75 13
I

Closing prices, April 12

March 170 March 18's 8':24's 18':4 99
24'12' 15'4
29'1 25'4
29'1 25'4
29'1 25'4
29'1 25'4
29'1 25'4
29'1 26'
11'4 21'
11'4 91
29'1 26'
11'5 91
15'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5
16'5 15'5 15'5 15'5
16'5 15'5 15'5 15'5
16'5 15'5 15'5 15'5
16'5 15'5 15'5 15'5
16'5 15'5 15'5 15'5 15'5
16'5 15'5 15'5 29 551: 151: 91: 41 391: 271: 281: 281: 814 1778 3734 3936 1434 1534 916 92 2278 3112 3412 4814 \$1 20 2.68 pt2 50 1.80 .22a .08i .640 Nortop Newthol Newth Norton Norwst Novo Nucor Nucor Nucor Nucor Nucor Nucor 45°8 62°4 23°2 26°4 38°6 30°4 51°2 8°8 8°8 Logicon 20
Logicon 20
Lombit 19
Lomb 47 8 11. 9 38 33 79 6 16 37 40 26 1.1 14 19 15 19 15 11 12 6 11 39 10 54 19 772 17 57 17 24 14 24 19 33 0 16 55 18 33 7 31 8 10 25 5 9 11. 12 31 15 52 12 31 15 52 12 31 15 52 12

54 % 25 % 25 % 25 % 26 % 26 % 27 % 28 % 20 % 21 % 21 % 21 %

7 2 36 pi4 40 pi4.50 dpr3.4; dpr2 9; dpr3 2; dpr3 7; pi9.24 pr 11 pr 13 cr 8

Continued on Page 25

هكذا من المعل

CDI 3 200 CRES 34 CRES 128 CRE

561, 44, 71, 1218

Figure 1.39
Figure

HER THE STATE OF THE SECOND STATE OF THE SECOND STATE OF THE SECOND SECO

213, 31, 6's 1's 253,

AMERICAN STOCK EXCHANGE COMPOSITE CLOSING PRICES

Hasting Hastin

MSA n 72
MSA n 15
MSA n 16
MSA

Names.
NEGSO

Wage 5 1
Wester 1.32
Wester 1.35
Wester 1.55
Wester 1.55
Wester 1.55
Wester 1.50
Wester 1.50
Wester 1.50
Wester 1.50
Wester 1.60
Wester 1.

8 461a 331a Xerox 5112 451a Xerox 30 24 Zescp 241b 1305 Zescp 58 30 Zeyre 311a 161a Zerote 2129 1438 Zero 313a 211a Zerote

PGIM 19
Packs pid
Packs pi

Continued on Page 26

LSB LeBarg LeFre 1234 1136 1136 1812 1812 1816 33 3112 2636 2034 1812 21 1212 1234 1136 1138 11 11 1014 1012 1014 1012 958 958 33 33 3118 3112 2512 2518 1918 1918 2004 2014 578 1572 258 247 1212 143 COMPOSITE **CLOSING PRICES** Chige Prev 12 fénigé

2514 21/26 21/26 161/2 1 ICH ICM Implication Implication Instruments Instrument

Jacobs Ja

20 80s 58t 20 20

35 \range 37 \range 35 \range 27 \range 31 \range 37 \range 35 \range 47 \ra

Ranger .44
Rayem .44
Rayem .44
Rayem .44
Rayem .45
Rases .40
Rases .123
Rases .40
Rase SCA 2

STSTEE .80

STSTEE .80

Salver 124

Styles .24

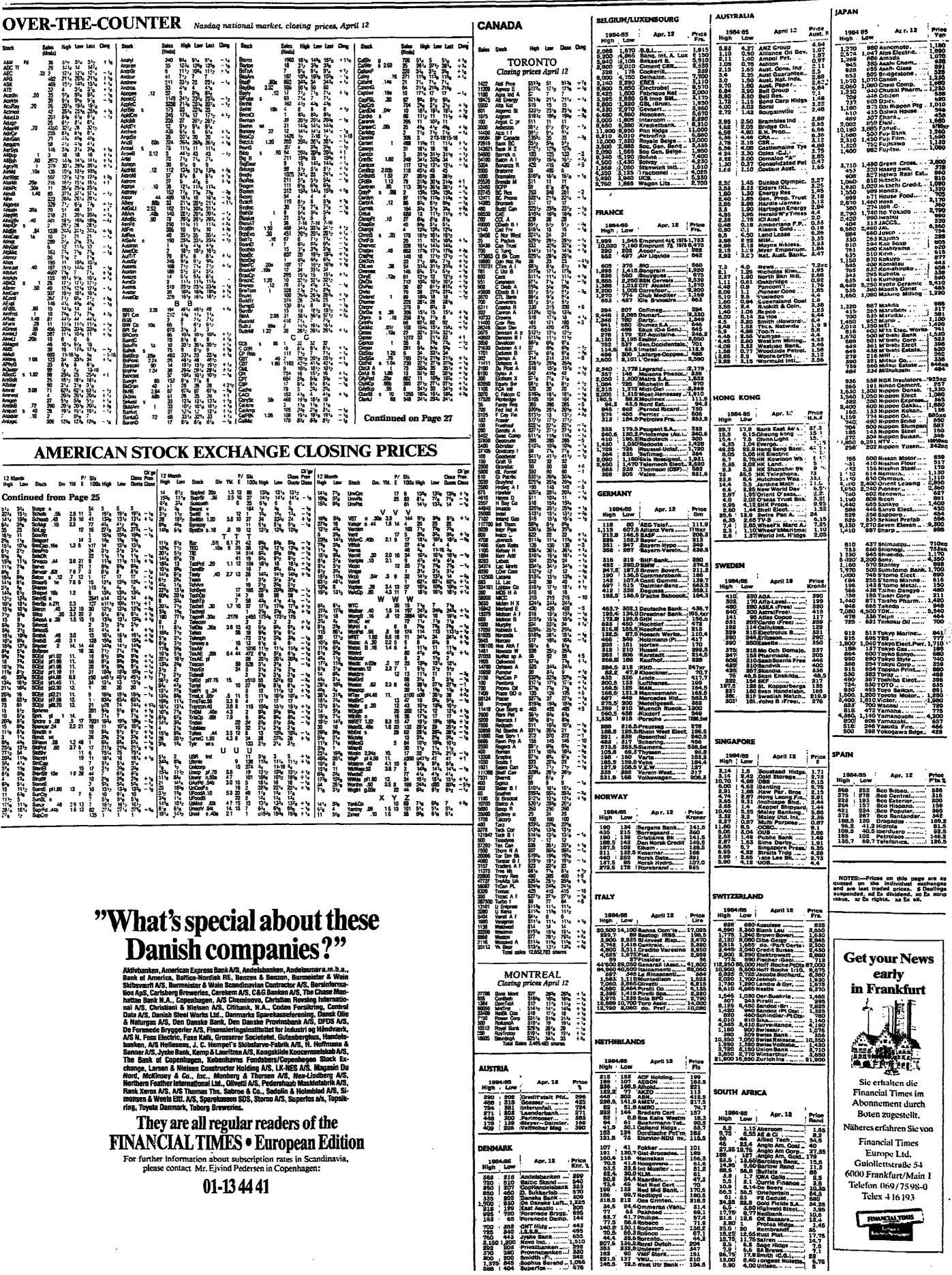
Styles .25

Styles .27

Styles .29

Styles .29 R R 1 .16 21 1 04 25 13 pl 2 12 70 pl 2 12 70 pl 3 165 10 30 2 6 9



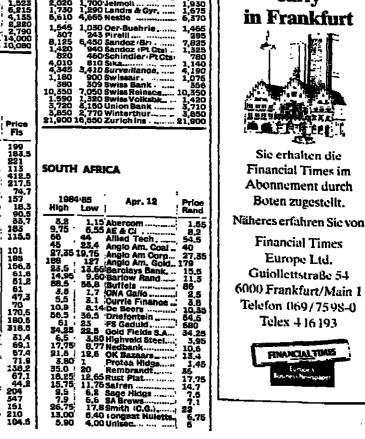


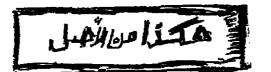
FINANCIAL TIMES • European Edition

26

For further information about subscription rates in Scandinavia, please contact Mr. Ejvind Pedersen in Copenhagen:

01-13 44 41





31-4 ST ST NO. - (37) 25 178 Windows W ____ | 185 147 | 1822 25 | 48 | 93 | 145 | 92 | November 1 116 at ... | 117 | 118 at ... | 118

		W	ORLD	STO	CK MA
OVER-THE- COUNTER	Stock Sales High Low Less Deng (Hods) Empor 116 13-16-54 34 Empor 7 87a 87a 87a	Stock Sales High Law Last Ching	(Hnds)	High Low last Ching	NEW YORK
Stock Soles High Low Last Ching	Emilias 29 878 878 874 - 16 Finitis 209 5 434 434 Entheo 21 714 7 7 - 12 Enthes 343 1514 1419 1456 - 19 Emilias 1,60 141 24 291, 2925, 412	N9 Fn 2.20 123 32 \ 231 \ 221 \ + 1. \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	4 MonEr 12 4 MonEr 35e 37 MonArd 54 MonOrl 503 8 MonOrl 130 116	183a 181a 183a + 12 8:a 83a 83a 125a 123a 125a + 3a 13 123a 125a + 15a	Apr. April 12 11
Continued from Page 26 Caste 4 812 612 612 +12 Caste 11 17 1694 1694 Caste 152 23 20 20 20 Custos 485 141 13 14 41	Fig. 3 129 872 778 812 ± 55 127 12	Imagen	2 WC-22 19 8 Morrso 48 785	1712 1717 1712 13 1214 1214 1917 1914 1915 + 12 1908 1918 1928 + 18 618 518 619 + 18	Nindustri'ls 1265,89 1263,89 1 H'ime Binds 74,56 74,27 Fransport 598,21 598,66 (Utilities 185,86 155,72 (
Cests 30 1612 1636 1636 1636 1636 1636 1636 1636	Emoris 36 31 to 31 37 Emoris 40 1534 1412 1514 - 14 EnzoBis 84 1654 1615 1615 Eps in 101 1314 13 1314 + 16	MACOUS	Motor 10 35 14 15 15 15 15 15 15 1	15 124 124 - 9 224 224 224 + 4 545 545 545 25 45 45	Freding Vol 000-† 56,220 108,360 1
1568 1514 1568 + 18 1569 18 18 18 18 18 18 18 1	Equat 230 151, 15 15 -1; Equator 33 478 458 458 -1; Equator 33 478 458 458 -1; Equator 34 82 251; 241; 2418 18 Equator 32 251; 241; 2418 18 Equator 34 324 324 324 324 324 18 Enellac 5 100 100 100 -1; Evistat 176 141; 1334 1334 -1; Evistat 15 131; 1334 1314 -1; Evistat 15 131; 1314 1314 -1; Evistat 15 131; 1314 1314 -1; Evistat 15 131; 1314 1314 -1; Evistat 15 1314 -1; Evistat 15 1314 1314 -1; Evistat 15 1314 1314 -1; Evistat 15 1314 -1; Evistat 15	Intralis	NAS 357 Napool 40 16 Napool 5 15	N 524 534 - 15 656 614 626 - 15 15 1478 1472 - 15 1234 1235 1256 - 16 15	industrial div. yield &
COMPON A 500 4 1812 18 1812 114 CBORD A 500 76 1412 1334 14 112 Component 152 115 17 1612 1670 736 COMPONENT 152 17 17 17 12 17 17 17 17 17 17 17 17 17 17 17 17 17	Extrar 70 1442 1412 1414 FM 1415 FM 1415 1415 1415 1415 1415 1415 1415 141	Number 12 7 612 7 7 74 Institute 12 7 612 7 7 74 Institute 12 7 614 614 614 614 614 614 614 614 614 614	NCTyBn t 38 NRCty 2 722 NCTy cf 3.70 25 NCmBc 68 20	514 514 514 1638 16 16 + 12 1 41 4019 41 + 12 1 46 45 46 + 14	Apr. 12 11 ndust'is 201,10 200.72 Comp's'te 180.54 180.19
Colore 74 202 2134 2114 2114 - 12 Colored 42 776 715 776 + 36 Colored 12417 814 734 8 - 36 Correct 9 42 1314 3 13 - 14	Fee	headyn h 79 10 934 976 - 16 headyn h 79 16 167 1634 1414 1414 4 16 headyn h 736 73 73 73 173 headyn h 1112 60 60 60 - 14	NDate .44 1521 NHard s 22 NHard s 29 NHard 37e 19	15½ 15¼ 15½ 10½ 10½ 10¼ +½ 6 5¾ 6 +¼ 27 25¼ 26¼ +¾ 5¾ 5¾ 5¼ +½	industrial div. yield
Corrects 12 766 27 2612 2678 + 12 Corrects 18 91029 1214 12 12 - 12 Corrects 210 10 3658 3658 3658	Fring 1.76 1541 565 ₆ 555 ₆ 561 ₂ + 3 ₄ FamCo .24 21 13 121 ₄ 121 ₄ - 3 ₄ FdScnw .30e 4 11 18 11 +1	Instruet	Niktorn 430 NaSPerin 1 60 NaSPerin 70 NaSPerin 9 NaSProp 9 NaSProp 9	301s 301s 301s -7s 91s 9 91s -1s 12 12 12 12 +1s 35s 35s 35s 4 4 4	Long Gov. Bond yield N.Y.S.E. ALL COMMON
ComBe 50r 4 1112 1112 1112 112 - 1 ComBes 2 24 50 4814 50 + 14 ComCor 2 12 4 7812 7812 7812 7812 7812 7812 7812 7812	Ferofic 305 512 476 5 Fibron 124 1572 1574 +14 1 Fibron 240 338 54 5312 5376 Fibron 13 4512 4412 4412 Fibron 58 53 23 3112 32 +12 Fibron 71 16 1512 1538 +19	Indied	Naugle 582 NelshT 20 81	558 578 578 718 778 758 754 -18	Apr. Apr. Apr. Apr. Hi 13 . 11 10 9 Hi 104.64 164.43 163.88 163.52 106
Combin 124e 11 81a 77a 77a 77a Combin 38 31a 51a 51a 51a 51a 51a 51a 51a 51a 51a 5	Finalco 20 33 41s 4 4ts 4 1s Finalco 20 33 41s 4 4ts 4 1s Finalco 20 35 41s 4 4ts 4 1s Finalco 20 35 41s 4 4ts 4 1s Finalco 20 35 4ts 4 1s	http://discrete: http://disc	NH 170B 80 15	8'a 834 8'a + 1a 25 2432 25 + 1a 251- 25 2512 51- 518 514 + 1a 5-16 14 14 - 1-16	TORONTO Apr 12 Metals & Minerals 2046 Composite 2628
Compcre 122 1236 1236 1236 1236 1236 1236 1236	radm pr .99 4 1712 17 1712 + 12 PAFin .72 5 25 28 28 PAFin .1.10 85 2978 2912 2978 + 38 PCorer 120 11 2412 2412 2412 - 241	J J J J J J J J J J	Newort s 06 123 NampPh 4058 NtCal g 1 337 Nack.OG 7 Nate B 40 418	1034 1014 1036 + 18 2212 22 22 85 8 516 + 18 458 458 459 9 16 - 18	MONTREAL Portfolio 129 NEV Friday Stocks C
Complete 8/ 2514 2454 255 CPM 19 8 77 8 8 Complete 0.08 90 1114 1054 1114 CPM 1114 CPM 1114 45 815 8 8 CPM 1114 45 815 8 8 CPM 1114 45 815 8 8 CPM 1114 45 815 815 815 815 815 815 815 815 815 81	FROM 1.20 15 374 372 3734 + 34 FDataR 2341 2514 2514 25 + 12 FESC 8 1.35 26 3134 31 3112 - 14 FEVEC 8 16'4 16'4 16'4 16'4 16'4 16'4 16'4 16'4	Jest 25	Nobel 2-7 1084 Notway 1 10 Notand 56 1 Abrush 85 725 Nordst 44 451 Norsk B .12e 70	914 834 9 + 14 656 656 655 + 14 2234 2234 2334 - 34 2034 20 20 - 14 4014 301; 3034 + 15 411; 4114 4115 7 34	traded Unirgyal . 2,120,400 Phillips Pet . 1,935,700 AMF . 1,827,800 Uncal CP 1,673,300 Uncal CP
Compl.R .12 84 675 634 678 + 18 Complet 331 516 434 476 - 18 Complet 10 734 734 734 Complet 9 60 936 936 936 + 14 Complet 12 412 412 + 14 Complet 12 20 20 + 38 12 Complet 12 20 20 + 38	FFCCal 13 250, 29°-20°2 - 14 FFRM 30a 110 22 213, 22 + 15 FFsCp 80 32 22 213, 22 + 15 Frinks 7 20°4 30°4 23°4 - 14 Frinks 40 151 23°4 23°2 - 14 Frinks 5 1.40 4 23°4 23°4 23°4 - 15 Frinks 5 1.40 4 23°4 23°4 23°4	Jerror 12 931 1816 18 1816 + 16 Jey 130 5-16 ta 1a - 1-1 Jeys 5 5 5 5 5 5 5 5 5	IE NAMIR. 37 NCArGs 1 84 6 NoFrkB 1e 21 NEHHAI 17	26 25 26	Stack Sales High Lav (Hnds)
Coptet: 16 63a 6 61a - 1a Comptet: 4 814 814 814 81 3 - 1a Construct: 36 314 3 3 - 1a Construct: 355 103a 91a 81a + 5a Comptet: 11 115a 113a 113a	Plind 18 1894 1894 1894 - 14 Phantis I 13 1312 13 1312 + 12 Phantis I 13 1312 13 1312 + 14 Phantis I 13 2794 2714 - 14 Phantis I 3 2794 2714 2714 - 14 Phantis I 60 34 3814 3574 3614 + 36 Phantis I 20 1 1894 1894 1894	Justin .40 127 174 1714 1712 K K K K K K K K K K K K K K K K K K	NcAr 80 Nature 5 8 NetNG 144 102 Metp 5 161 1 NetFn 5 68 371	61e 61e 61e - 1e F 15 141e 15 - 12 F 18 171e 171e - 1e F 512 512 512 + 1e F 2712 271e 271e + 1e F	adSys 341 135e 135e adenti 157 123a 125a adenti 57 123a 125a agen 185 65a 61a aur 3 1 1308 265a 261 auraek 194 43a 4 auch 65 415 44a
Compasho 102 55- 51- 51- 51- 600 600 600 600 600 600 600 600 600 60	FlagmeC 2 434 434 434 FlagGa 1.08 2 48 48 48 FlagCm 2.60b 239 5514.54 5514 +11 FlagSup .02e 91 1512 15 1512 +12 FlagSup .02e 91 1512 15 1512 +12 FlagSup .02e 91 1512 1814 1814 +14 FlagSup .02e 91 1512 1814 1814 -14 FlagSup .02e 91 1512 1814 1814 -14	KV Phr 39 71- 534 71- +7s Karman 58 644 2834 2814 2815 - 14 Karchr 266 1834 2814 2814 +34 Karchr 266 1834 147s 151s - 1s Kasder 50r 64 151s 147s 151s - 1s Kaydon 44 834 848 83 - 2s Kaydon 553 34 5s 11-16 Kaylon 553 34 5s 11-16 Kaylon 563 3812 37 37 - 12	NestPS 2 10 96 10 10 10 10 10 10 10 10 10 10 10 10 10	23 223 223 9 9 9 9 9 9 9 9 9	Jayrid S 70 1 2652 2452 Jayrid S 70 1 2652 2452 Jayrid 34 8 1774 17 Beduni 305 181- 1774 Beduni 64 6 32 3173 Benves 314 878 834 Britis 1 3 14 14
CCRSS 3 139 23 22½ 22¾ -14 ConPbr 9 7½ 758 776 +1½ CaPap s 128 530 38 38 39 +1 Corent8 1.52 22 27 26½ 27 +14 Corent8 3 50 51 51 51 51 41	FIGHER 1.80 8 3874 3874 3874 - 19 FIGHER 253 812 814 812 + 14 FREGE .98 34 3294 3212 3234 + 14 FREWER 2 994 819 814 + 12 FREWER 2 994 819 814 + 12 FREWER 2 994 819 814 - 38 FREWER 2 994 814 814 - 38 FREWER 2 994 814 - 38	Kempp	NuclPh 530 NuclPh 12 3 Numero 88 21 Numero 28 21 Numero 28 21 Numero 28 28 Numero 28 N	1414 1312 1312 - 14 F 514 516 516 - 16 F 14 14 - 14 F 178 712 778 + 14 F 1412 24 2412 F 174 718 714 F	ggy60 20 80 81 61s egs 5 09 2 121s 12 leidAsh 6 6 6 frieb 17 71z 71s isnel 17 41s 4 lepop 7 51z 51g
Conhit s 1.40 40 251; 25 25 -1, Conhit s 1.40 40 251; 25 25 25 -1, Conhit s 124; 114; 114; 114; 114; 114; 114; 114;	185mc 437 2 1312 1312 1312 1315 1515 1515 1515 15	Kincand	O CCG Tc 18 Catchel 218 CbiFlec 19 Cteamer 23	O Fa Ta Fa Fa Fa Fa Fa Fa	hiChar 78 1814 171. hiChar 78 98 99 99 171. hiChar 44 60 93 99 171. hichar 57 153 147. hichar 57 153 147. hichar 158 2 117 117. hichar 218 95 27 27.
Convert 38e 5 734 734 734 734 734 734 734 734 734 734	Pagler 22s 7 1034 1034 1034 -14	KustEl 20 714 718 714 L L L L L L L L L L	Offstag 44 CgafM s 1 08 72 ChoCa 280 74 Cdsfsh 8 Classification s 1 164 6	1412 1412 1412 - 14 F 112 218 21- 1034 4014 4032 F 1138 5118 5118 - 38 F 15 5 5 F 17 2512 2518 + 18 F	leverA 1.44 25 117s 113s lescon 270 71s 87s lesfany 1.24 140 40 38 Modeer s 24 45 715s 711s lober 194 19 181s lober 3 267s 267s model 2 192 53 481;
Cortism 60 - 67 a 61 a 61 a -12 Cortism 256 81 a 91 a	Files 8 .72 111 341 34 341 41 + 12 Files 8 71 121 12 12 12 12 12 12 12 12 12 12 12 1	LTX 1017 16% 18 1612 LaPets 5 175 15% 15% 15% 15% 15% 15% 15% 15% 15% 15	OtoRep 88 3354 3 OudState 2.08 60 OtoS pf8, 2.40 25 OtoS pfC 2.50 135 OneBop 26a 235	834 3813 3834 + 14 F 812 29 29 - 14 F 818 2016 2014 11 18 2076 2076 - 14 F 818 18 1818 + 18 F	nggeh 2 192 53 461; ngys 35 3 294 hval 80 50 151s 15 kadS a 1 7757 2534 2534 nobbsyn 10 1312 131; nobbsyn 1 6 75s 75s nobwan 06 96 1314 1354
Cough 9 .32 99 24% 23% 23% -1 Cough 65 1 1 1 1 ChBri .14 -71 141°2 14 14 Crastr .55 35 14: 14 14 +14 Crastr .57 35 15: 81°2 -08 Crastr .37 21°2 21°4 21°4 -74	Flon A 198 81 15 14% 15 ForAm : 86 142 301 2894 2994 - 34 Foresti: 8 614 614 614 Fortoff 267 1912 1914 1914 - 14 Fortoff 27 1912 1914 1914 - 14 Fortoff 287 1913 1914 1914 - 14 Fortoff 287 1912 1914 1914 - 14 Fortoff 287 1912 1914 1914 - 14 Fortoff 287 1912 1914 1914 - 14	Lampile	Operic s 77 1 Operic s 77 1 Orbano 189	27 ₆ 3 7 1 ₈ R 51 ₄ 143 ₄ 151 ₄ + 3 ₆ R 11 401 ₄ 403 ₄ - 1 ₄ R 23 ₄ 121 ₄ 123 ₄ R 8 175 ₆ 177 ₈ + 1 ₄ R	bbVsn 53 12% 12½ 12½ ockor 79 19% 19½ 19½ chatt .56e 2 11 11 MUnd 126 8½ 7% 8½ 7% 11% 11% 11%
Crostr 80 146 245 24 24 -36 Crostr 80 146 245 24 24 -36 Crosts 9 20 45 41 414 Crosts 5 123 123 123 +12 Crosts 41 257 257 257 -14 Crosts 9 44 1 257 257 257 -18 124 172 -18	Freezer .10 22 6 54 54 - 1 a Freezer .51 25 27 12 27 2 4 Freezer .51 26 27 12 27 2 4 1	LaneCo 92 15 47 4612 47 +14 Larsen 56 30 35 3414 3412 +14 Larsen 8 28 80 28 2712 2734 +14 LeeDta 64 59 514 514 -16 Leent 9 1212 1214 -19 Leent 280 59 876 88 874 -76	Oregat 2.50e 56 1 OrtaCo 85 5 Oronik 12 Oshma 20 13 OstriP 2.76 153	014 902 1014 F	IOSES 8 28a 15 251, 25 DOSCIO 50 54 20% 201; DOSE 108 44 401, 40 DOVER 70 10 25 DOVERS 46 5 54 DOVERS 46 5 51, 91, 91, 91, 91, 91, 91, 91, 91, 91, 9
Culp	Fusion: 1365 Ste Ste Ste - 3. Fusion: 1365 Ste Ste Ste - 3. Fusion: 30 42 151e 143a 151e + 3a G G GK Sv s .25 1 151e 151e 151e GTS 201 101e 97a 101e + 1. Guidan 33 12'e 113'e 12'e + 3e	Lesichs 18 2% 2% 2% 2% LbFGa 2 20 20 20 20 LbBGC 1.56 4 42*2 42*2 42*2 Light .07 191 1914 18 19 +*2 LBms .24 32 44*2 43% 44*2 +34 LbCom 3 6 6 6	Owents 40 15 1 Oxoco 239 3 PMC 2.32 1076 5 PabsiB 33 3	7 1612 17 7 12 13 14 278 278 -12 15 16 278 278 12 15 15 15 15 15 15 15 15 15 15 15 15 15	beend 15 4½ 4% 4% 4% 4% 4% 4% 4% 4% 4% 4% 4% 4% 4%
DBA 16 1714 1694 1694 DDW 4 35e 3 57 56 57 DD 11 312 312 312 18 DEP 42 912 9 912 DLies 174 1334 1336 1332 DWA PI 13 612 612 612	GamaB .10 54 1014 10 1015 + 16 GamaB .10 54 1014 10 1015 + 16 GamaB g .534 .12 454 48 48 4 - 34 Gamab .30 55 55 55 55 55 6 6 6 1015 1015 10 10	Lightal 20 857 167a 167a 167a 167a 167a 167a 167a 167	PacFst 212 PcGaR 1.40b 24 PacFel .80 32 PaccPh 44 Pantch 381	1014 10 1014 118 6 6 6 6 6 6 6 6 6	AY Ind 21 14 13A CI Sy 592 135a 13 EI 155 18 181 FE 107 204 934 972 P Drug 1 137 1434 143 FRI 6885 18 175
DOC** 20 614 614 614 Darrikt 1 2 912 912 912 - 12 Datsysy 1403 3054 2914 2914 - 114 Datasf 11 2918 2854 2916 + 28 DimuBro 10 5 434 5 + 18 Datasf 234 174, 1714 1719	GnPhys 3 1014 1014 1014 + 12 GnShal .75r 36 15 15 15 15 Genetic 20 3 27s 27s - 14 Genetic 4 25s 27s 25s - 16 Genetic 117 7 63s 83s - 16 Genetic 118 5 43s 43s - 12	Lighter 1.80 6 24'4 24'4 4'4 - '4 Lighter 5 25 231 3834 38 38'2 + '4 Localf .07e 7 16'4 16'2 16'2 Londril 13 9'2 9'2 3'4 - '4 Longf 128 124 23'4 22'1 23'4 + '1 Longf 1285 27'4 27'2 27'4 - '4 Long 1235 27'4 27'2 7'5 - '4	Pensph 164 ParPh 5 297 ParTch 11 Parisen 2 PantCm 10	1778 1712 1734 1814 1812 16 - 14 1712 1814 1814 1134 1134 1134 1812 3812 3812 +112	islecrd 1504 22 % 21 % 21 % 21 % 21 % 22 % 21 % 21
Dis IO 54 11% 11% 11% DS with 263 5% 5% 5% 5% 5% 6% 6% 6% 6% 6% 6% 6% 6% 6% 6% 6% 6% 6%	Genova 10e 28 55 55 57 57 45 66 68 69 69 68 69 68 69 69 69 69 69 69 69 69 69 69 69 69 69	LaBhigh 174 1514 1476 1514 Lynden 6 2212 2212 -14 Lynden 5 1304 1336 1316 1336 +18 M M M M M M M M M M M M M M M M M M M	Parkwy 4 Parkwy 63 Pastriak .05e 10 Patriak 303 Patriak 54 Patriak 163	2012 2012 2012 14 1312 14 1136 1136 1136 -118 156 5 516 154 414 458 † 18	SenSer .05r 39 812 8 SandCis' 5 7'4 7'4 SenWF 1.60a 41 38'4 38'4 SVBAPS .84 63 30'4 30'1 SCENT
Devity S	Ghank 1.70 20 27 2 27 4 27 4 - 34 Genf6 1777 1112 1114 1112 + 12 Golder 314 48 1112 11 1112 + 12 Golde 5 24 2124 1832 1832 1832 1832 1832 1832 1832 1832	MPSI s 55 54 55 52 -14 MTS e 24 18 18 17 17 17 17 17 17 17 17 17 17 17 17 17	Pant pl 2.20, 5 a Paulitr 118 Paulitr 3 Paulitr 9 Paylon .48 9 Paylon 22	812 2814 - 14 15 35 35 - 12 1812 1835 1812 184 984 984 - 14 1812 1812 1812 - 14 2318 2318 2318	SchimA 40 52 1734 171 Scarned 4 8 8 ScCmg 28 7 61s 57s Scilinc 9 1 6 8 Scalute 102 412 43s SciSt 4 1014 101
DefaDt 13 1½ 1¾ 13 13 - 3 DefaG 1.04 45 11¼ 11¼ 11½ 11½ DefaB 1 7 7 7 Defaux 189 1½ 1¼ 1½ Denekr 183 5 434 47 Denekr 214 64 6 674	Gould 78 128 1619 16 15 -12 Grado 44 129 129 119 129 119 Grado 3 812 812 812 -12 Grado 85 812 812 812 -12 Grado 41 1284 123 1256 Graph 41 1284 123 1256 Graph 41 314 3 3 -14 Graph 43 34 3 3 -14	Macrit	Payco s 11 PeakHC 309 PearH 118 PearMi .72 1 PeaGd .08 827	13 1242 1279 + 14 13 1244 2378 24 + 18 13 12 13	ScSySv 2349 67s 6 Screen 8: 18 17s Screen .80 25 37 12 36 SeaGal 250 91s 87s SeaGal 1012 57s 63s SeaGal 20 91s 87s SeaGal 20 655
DepGy 2.20 20 43 43 43 43 4 - 14 . Detgpth 39 65 6 6 14 + 15 Detce 1 15 5 4 5 5 4 Detro 1.20 10 31 4 31 4 31 4 + 12 Devey 1 43 4 43 4 43 4 Deaph 28 11 4 1 11 4	GrinCo 1289 512 534 534 GrinCo 12 834 872 894 672 894 672 894 672 894 673 894 895 895 895 895 895 895 895 895 895 895	Marina	Penest 118 PeopEx 1772 (PeopB s .52 6	10 2912 2944 - 14 1414 2334 2414 + 12 1214 1134 12 134 838 612 - 14 1712 1634 1712 + 34	SeamFid 68 29 76 9 16 Schillist 1.10 2 16 151 Socklid 1.20 5 30 2 30 SecAFn .10t 11 1714 17 SecElop 112 606 2034 20 SecTap 10 3 32 SEEC 92 35 312
Designe 1311 376 376 319 Other 1 52 3234 313 32 -14 Decenn 149 1112 11 1114 +14 Demed 438 712 7 736 +36 Design 102 636 6 536 +36 Design 43 2312 23 23 -14	Groman 4 1114 1114 1114 Gesthird 98 526 476 516 1154 1154 115 Guarfin 25 576 676 574 - 74 Guarfin 12 1514 13 13 - 16 Guarfin 12 1514 13 15 - 24 1514 15 16 - 24	Marriet 0.56 36 12 12 12 12 Marrist 37 12 774 774 17 17 17 17 17	Percept 15 Perp4 368 PersCpt 25 Petrto 58 Petrta 1.12 112 Phrmst 382	74 712 734 1412 1416 1436 175 876 876 1 304 4 + 18 1878 2816 2816 1214 1114 1134 - 56	Sembel .80 252 22 ¹ 4 21 ³ 4 21 ³ 5 21 ³ 6 21 ³ 5 2
Dones 637 3214 314 32 +34 Dest. og 24 612 614 658 - 18 DMood 34 1966 10 994 846 DocuOt 66 514 518 518 - 18	GHApid 20 8 9% 6% 9% 6% 9% 6% 6% 6% 6% 6% 6% 6% 6% 6% 6% 6% 6% 6%	Massion 2202 556 516 476 - 14 Matthew 24 14 1334 1334 Matthew 24 14 1334 1334 Matthew 25 1714 2714 2714 1718 2714 2714 1714 2714 1714 2714 1714 2714 1714 2714	Phrm wt 102 PSFS 324 PhilGl .48+ 1605 PhrnAm 28 PhonaC 5 2	114 8 813 + 18 6 114 878 718 + 14 6 126 814 938 6 126 1612 + 18 8 126 212 250 + 18 6 124 634 634 - 18 6	Servico t 160 1914 181, Socient 109 519 6 Servicit 109 519 6 Servicit 109 13 1419 141, Servicit 1419 141, Servicit 1419 141, Servicit 1419 1419 1419 1419 1419 1419 1419 141
Durali 1.20 868 30 2912 30 + 14	HEI To 4 14 14 14 -34 14 14 -34 14 14 14 14 14 14 14 14 14 14 14 14 14	MaySu A .10e 41 1734 1714 1736 - 18 MaynOl 1 374 374 374 McCrm .88 57 3575 3475 3476 McFad 63 1114 1114 114 + 16 McFad 115 1212 12 1212 + 12 Maddex 05 5 914 914 974 Maddex 105 776 774 778	Papa S 30 1 Pronid 92 2279 Papa S 12 20 1 Plantic 96 6	211a 2024 2024 - 14 1914 1914 1914 1914 2912 3014 - 14 3 8 8 - 12 1912 2812 2812 + 12	The control of the co
Drestr .16e 140 15\alpha .144 15 Drestr .16e 19 33\alpha .2 33 +3\alpha Drestt .250 15\alpha .19\alpha .15\alpha Drestr .68 12\alpha .13\alpha .12\alpha +1\alpha Drestr .68 12\alpha .13\alpha .13\alpha .12\alpha +1\alpha Drestr .2 16 15\alpha .13\alpha .13	HaleSy n 542 114 7s 7 -14 148min 1009 25s 27s 29-18 -1-16 148min 1 1009 25s 27s 29-18 -1-16 148min 1 100 61 157s 157s 157s 157s 158 148min 1 150 321 257s 257s 257s 257s 27s 157s 157s 157s 157s 157s 157s 157s 15	Medic St	PoFolk 26 PicyAlg 402 PonceF 25r 84 Porer 8 Poweli 51 Powett: 42	10 97a 97a - 1a 5 774 273a 273a - 3a 5 15a 93a 93a - 3a 5 212 2214 2212 212 2214 2212 212 213 216 - 16 5 16 1734 18	abcVal 60 1778 17 abcNa 454 2014 1915 idea 19 73a 71a ampla 7 11 103, ampla 80 10 155a 151a optin 61 155a 154a azzler 23 19 184
Durim 9 18 1514 1514 - 34 Durim 8 1.28 5 3914 3914 3914 3914 3914 3914 3914 3914	Hardw s x19 372 8 972 Harsser 356 1 171 171 4 774 + 76 Hardw 52 5 21 20 201 Hardw 28 177 874 872 882 - 78 Hand 5 644 19 1816 19 + 76 Hand 5 41 13 121 1212 + 12	MercBc 192 57 3614 35 36 -19 MercBc 168 26 4994 4994 4994 -15 MerBCa 10 612 613 617 -12 MerBPa 1.50 12 3614 3834 3834 3834 MerNY 1b 3 78 77 7712 112 MercBCa 11 18 1734 18	Prpdl.g 357 Prestl 8 18 Prestl 9 50 30 Prestsy 31 Prais 160 4	14 534 534 - 14 5 1534 2412 2512 + 34 5 16 1514 1534 - 14 5 134 335 134 412 434	Apper .05 20 1034 1015 Boant
Dynam (37 4% 4% 4% 1% Dynam (38 23 23 23 23 23 23 23 23 23 23 23 23 23	Hitchin 23 34 35 35 35 - 12 Hitchin 23 34 35 35 35 - 12 Hitchin 1018 37s 35 35 5 - 1s Hechin 1018 47 241 237s 24 + 1s Hechin 10 58 26 251 251 2 14 Helen 12 355 51s 45 51s + 1s Helen 12 32 32 52 52	Merchit 1.20 2 4852 4954 4954 + 74	ProCo s 250 5 PrindO16 120 6 PrindO16 23 6 ProCo .16 713 6 ProCo .16 713 6	774 5612 5634 576 6 1312 1314 1312 5 514 578 +58 5 178 555 578	ocusión 239 137 ₈ 131; otach 30 73 ₈ 71 ₈ otach 305 1434 143 ₆ onesta 40 2 24 24; onesta 120a 111 46 45 omrfd .15e 434 181 ₂ 18
EMF 27 31 3 3 - 18 EMF 27 51 5 3 3 - 18 EMF 27 61 7 + 12 EMF 121 101 2 10 1014 1 4 12 EMF 270 34 5-18 35 EMF WA 1 412 412 412 412 412 412 412 412 412 4	Heritin 1.50 118 457s 453s 457s +14 Hibert 5 15 22 2114 2034 21 Hibert 3 1114 1114 +14 Hogan 53 57s 55s 55s -18 Hogan 1 28 24 2312 2312 -34 Hogan 5 .58 4 31 30 3015 -12	MetAl	ProgSys 17 ProgCo 16 3 Progrp 22 Propfir 1.20 215 ProtCp s .62 91	117, 117, 117, -3, 13, 13, 13, 13, 13, 13, 13, 13, 13, 1	
EartCal 78 7 95 97 97 97 97 97 97 97 97 97 97 97 97 97	Hm5P1 567 113a 103a 113a + 1a Hm5P2 225 189a 181a 181a 181a Hm6S1 415 257a 23 241a + 1 Hm6S1 415 257a 23 241a + 1 Hm1S1 18 - 1a	Macroy	Protin 288s 98 8 Protint 6 Pricts 278	178 2 - 4 1416 14 14 - 18 312 93 93 - 12 00 10 36 15-16136 174 2136 2134 + 18	
Elen	Honer 1.20 27 27's 27's 27's 18's 18's 18's 18's 18's 18's 18's 18	MdSFrd 40 7 21 21 2 12 12 13 14 21 2 15 25 25 25 25 25	PySter 112 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1014 3014 3014 + 14 176 6 4 8 8 8 1012 20 2014 + 14 13 1224 1279 - 18 16 576 6 † 18	
Edor9 1 512 512 514 Edor9 1 512 514 6 514 1 516 6 514	Fring S 28 105a	Militiar A4 57 401a 307a 40 - 1a Minister 570 312 314 37-16 1-11 Minetak 1027 71a 67a 67a 1-12 Minister 420 255a 261a 261a - 1a	Chalsy 19 6 Chark s 7 Charm 69 Cuest4 27	176 176 216 412 14 1414 + 18 1132 2114 2134 56 356 356 1 258 9 + 14 0 912 10 + 12	
Eichni 521 133 133 133 - 14 Eichni 521 133 133 - 14 Eichni 521 133 133 - 14 Eichni 35 121 113 121 + 12 Eichlic 42 714 7 714 Eichlic 45 714 7 714 Eichlic 45 261 267 268 + 16 Eimarc 45 261 267 268 + 16 Eironer 14 10 94 10 + 36	Hyponx 46 6½ 6¼ 6½ +½ 1½ 1/4 6½ +½ 1/4 6½ 6¼ 6¼ 6¼ 6¼ 6¼ 6¼ 6¼ 6½ 6½ 6½ 6½ 6½ 6½ 6½ 6½ 6½ 6½ 6½ 6½ 6½	MGasa	Outcom 4983 1 R RAX 19 1 RJ Fin .05e 3 5 RPM 6 .56 200 1	274 1276 1276 - 18 R 6 312 18 + 12 9 9 612 15 1614 - 14	
-					

									ndi	ces			
MEM ,	YOR	K.	DOW	JONES		198	4.85	Since G	ompiłtn		Apr. 12	Apr.	Ac 1
	Apr. 12	April 11	Apr.	Apr	Apr. 9	High	Low	High	Low	AUSTRALIA All ord.: 1 185, Metals & Minis, (1:180)	864.0 581.1	863.5 558.7	8: 5:
industri'is 'me Bnds			1259,941 73,77			11 87851	24 7	1.3 85 ;	41.22	AUSTRIA Credit Aktien (7:1 62)	75.75	75,21	74
ransport tilities	598 91	598 65	507 11	588.6R	587.13	. 12 4 85: 635.30	.25 5: 444.03	635.50	12,52	BELGIUM Brussels SE . 1 1 801	2258.94	7262,82	
radingVol						112 4 43	122.25 . 15.8.	163,72 (-20 4 89	10,5 -28 4 42	DENMARK Copenhagen SE -3 1-83-	188.95	196,53	165,
000-† Day's High				low 1	257.29	(1257.		<u>!</u>		FRANCE GAC General (31:12:82) Ind Tendance (28:12:84)	226.B 128.6	218,2 120,1	. 11
Industri TANDARD		-	4.8		6ar. 22 4,82	4.1	99	ar ago	74	GERMANY FAZ Aktien (5) 12 56: Commerzbank (1 12 53)	418,78 1211,7	418.2 1202.5	41
	Apr. 12	Apr, 11	Apr. 10	Apr.	Apr.	High	Low	Since C High	Fomb,u	HONG KONG Hang Seng Bank-31 7 64	1492,18	1485.39	14
dust'is	201,10	200.72	199,94	198.66	198,42	205.15	167,74 124 7 147,82	205.15	3,62 30 8 52 4.40	ITALY Banca Comm Ital. : 1872	272,45	274,28	27.
			Mar. 2		y. 20	-15-2-85: Mar. 1	124 11	:15 2 85: ar ago :a	11 0-321	JAPAN** Nikke: Dow : 16 5.49: Tokyo SE New :4:1 88:		12675,8 9RQ.26	1260
Industri			3.88		88	3,90		3.97		NETHERLANDS ANP CBS General - 1970: ANP CBS Inquet : 1970:		235.6 164,4	20
Long G	w. Bond	yield	11.77	11		11.8	_	12,57		NORWAY Osio SE -4 1 85-	308,53	310.78	315
	L ALL C		1984.85				<u> </u>	Apr. 11		SINGAPORE Straits Times 1986:	600,23	605.65	806
lpr. Apr. 13 . 11 04.64 164.43		03.52 10	6.08 85	.13 U	nses Jis Inchang	raded jed	801 684 498	925 627 461	1,990 1,047 487 456	SOUTH AFRICA JSE Gold :28 9 78: JSE Indust :28 9 78:	نڌ. ان	1126,6 641.9	=
			2 85. (2)	N		hs vs		95 10 14-85	7å 4	SPAIN Madrid SE 28 12-84	189,79	118,64	"
ORONTO		_	2 11		•		ligh	1641.2		SWEDEN Jacobson & P : 11 58:	1438,9	1426,16	141
Metai	Compo	331te 262	6.8 2071. 8.0 2630. 9.96 129	5 2625.7	2608.2	2647.0	-5 3 85	2079.7	124 71	SWITZERLAND SwissBank Cpn. 31 12 58	416.7	419 4	418
ONINERE		_	W YOR						Change	Capital Intl. (1 1 78)		<u> </u>	201
friday Inirgyal . hillips Pel MF . Incal CP	2.1 2.1.9 1.9	raderi 20,400 135,700 127,800 173,300	losing price d 20's 39'4 20', 48's	on Jy - 11 1 - 13 (- 1 4	BM . IK Gase Vsin Co Lerna L Liuwn Z	Ele No.	1rade 951,44 906,56 883,10	00 128 00 23 ¹ , 00 81,	day +1	Base value of all Base value of all —2643, and Australia. Stundard and Poors—1 induces based 1975 an industrials plus 40 U u Univariable.	indices All Ori Or and d Montr	are 100 dinary a Torpido ear Por	erc net Con

Soldiege Sol

4 + 1, 100m

+ 1, 100m

1-2 + 1, 100m

1-2 + 1, 100m

1 - 2, 100m

1 -

	ADT. 12	Apr. 11	April 10	Apr.	1984 High	B5 Low
AUSTRALIA Ali ord1 \ 88, Metals & Minjs. (1/1/80)	864.0 581.1	863.5 558.7	855.2 548.4	845.7 545.5	863,3 -11 4 85 567,4 5 1 84	
AUSTRIA Gredit Aktien :2:1 62:	75.76	75,21	74,05	74,85	75,21 :11 4 25	53.00 .15
BELGIUM Brussels SE - 1 1 80:	2259.94	2262,82	2268,27	2276,23		
DENMARK Copenhagen SE -3 1-83-	188.95	186,53	185,80	185,60	225,21-29 1 64	158,44 -8 1
FRANCE GAC General :31:12:82: Ind Tendance :28 12:84:	228.B 120.6	218,2 120,1	216,7 118.9	216,9 118,2	218,2 -11 4 85 120,1 -11 4 95	155 6 - 5 1 100,0-26 12
GERMANY FAZ Aktien (5) 12 59; Commerzbank (1 12 55)	418,78 1211,7	418.2 1202.5	416.8 1704.7	413.3 1195,5	428,55 21 5 65 1229,3-21 5 25	\$17.17 -2 \$17.7 -2
HONG KONG Hang Seng Bank-31 7 64:	1492_18	1485.39	1478,61	1480,22	1483.58-11 4 35	746.02 -1
ITALY Banca Comm Ital. 1972,	272,45	274,28	275.49	270,71	298,71,20 2 85	192.06 -2 1
JAPAN** Nikkei Dow : 16 5:48: Tokyo SE New :4:1 88:	17586.01 981,62	12675,8 9RQ,26	12601.9		12685,5.3 4 d5- 1006,96-22 3 d5	9703.35 -2 730.46 -4 1
NETHERLANDS ANP CBS General - 1970: ANP CBS Inquet - 1970:	205,2 164,4		204,9 165,7	204.5 164.2	209.7·15 3 45· 186.8·22 5 ×5·	146.8 (25 118.7 (18
NORWAY DSIO SE -4 1 85-	506,55	310.78	315.26	513,91	345.6 -8 2 H5-	201,67 -4 1
SINGAPORE Straits Times : 1966:	600,23	603.65	806,78	B 12.22	1071,9 :4 2 84.	764,4 .16 f
SOUTH AFRICA ISE Gold :28 ¥ 78: ISE Indust :28 9 78:	نق. - ت	1125.6	=	=	1126 5 11 4 15 995,3 -4 5 44	7:6.8.24 1 767.5 -6 3
SPAIN Madrid SE :28 12-84	109,79	118,64	111,41	117.58	117,41 4 2 Ab	100.0 28 12
SWEDEN Jacobson & P : 11 58:	1438,9	1420,16	1412,76	1409.4	1594,5 -5 7 84-	1102 95 -22
SWITZERLAND SwissBank Cpn31 12 58-	416.7	419 4	418.B	418,4	450.9 19 5 65	254.5 - 25
WORLD Capital Intl. (1 1 70)		-	201,10	199,80	203.3-29 5 45-	143,2 -14 1

Victor Victors

Victors

Victors

Victors

Victors

Victors

Victors

Victors

Victors

Victors

Victors

Victors

Victors

Victors

Victors

Victors

Victors

Victors

Victors

Victors

Victors

Victors

Victors

Walbric

Walbr

1.40 .92

Dayn 5 Shii .10s 1.20 5 1.20 5 20

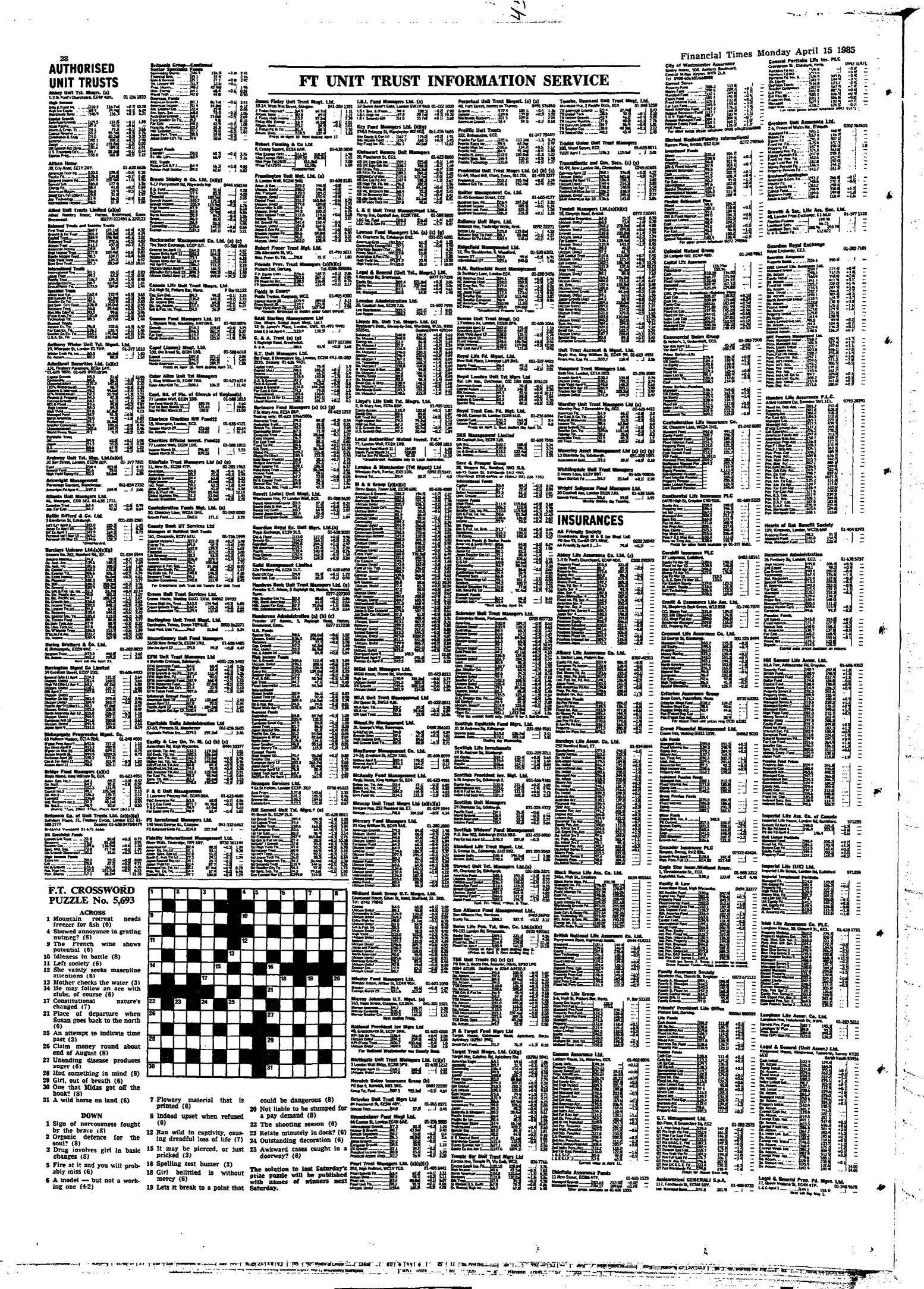
TIL UPSRCP 1.
UPSRCP 1.
UPSRCP 1.
UPSRCP 1.
UPSRCP 1.
UPSRCP 1.
Units 2.
Units 3.
Units 2.
Units 3.
Units 3.
Units 3.
Units 3.
Units 4.
Un

Hill Samuel **Base Rate**

With effect from the close of business on April 15th, 1985, Hill Samuel's Base Rate for lending will be decreased from $13\frac{1}{4}$ per cent to 13 per cent per annum. Interest payable on the Bank's Demand **Deposit Account will be at the rate** of 10 per cent per annum (gross)

Hill Samuel & Co. Limited 100 Wood Street, London &C2P 2Al. Telephone: 01-628 8011.





Financial Times Monday April 15 1985 and Bank Tst. Corp. (Jersey) Ltd. Stronghold Management (MI St. St Neber, Jerse). 10534 72156 9 0 Ser 315, St. heber Jerse Jerse 10504 7216 9 0 Ser 315, St. heber Jerse Jerse 10504 7216 9 0 Ser 315, St. heber Jerse Jerse 10504 7216 9 0 Ser 315, St. heber Jerse Jerse 10504 7216 9 0 Ser 315, St. heber Jerse Jerse 10504 7216 9 0 Ser 315, St. heber Jerse Jerse 10504 7216 9 0 Ser 315, St. heber Jerse Jerse 10504 7216 9 0 Ser 315, St. heber Jerse Jerse 10504 7216 9 0 Ser 315, St. heber Jerse Jerse 10504 7216 9 0 Ser 315, St. heber Jerse Jerse 10504 7216 9 0 Ser 315, St. heber Jerse Jerse 10504 7216 9 0 Ser 315, St. heber Jerse Jerse 10504 7216 9 0 Ser 315, St. heber Jerse Jerse 10504 7216 9 0 Ser 315, St. heber Jerse Jerse 10504 7216 9 0 Ser 315, St. heber Jerse INSURANCE, OVERSEAS & MONEY FUNDS 9n. Agents

13.77 TSB Trust Fearls (C.1.)
25 Hill St., St. Neber, Jersey (Cl).
25 Hill St., St. Neber, Jersey (Cl).
25 Hill St., St. Neber, Jersey (Cl).
27 TSB Trust Fearls (C.1.)
28 Hill St., St. Neber, Jersey (Cl).
29 TSB Trust Fearls (C.1.)
20 TSB Trust Fearls (C.1.)
20 TSB Trust Fearls (C.1.)
20 TSB Trust Fearls (C.1.)
21 TSB Trust Fearls (C.1.)
21 TSB Trust Fearls (C.1.)
22 TSB Trust Fearls (C.1.)
23 Hill St. St. Neber, Jersey (C.1.)
24 Hill St. St. Neber, Jersey (C.1.)
25 TSB Trust Fearls (C.1.)
26 TSB Trust Fearls (C.1.)
26 TSB Trust Fearls (C.1.)
27 TSB Trust Fearls (C.1.)
28 Hill St. St. Neber, Jersey (C.1.)
29 TSB Trust Fearls (C.1.)
20 Hill St. St. Neber, Jersey (C.1.)
21 Hill St. St. Neber, Jersey (C.1.)
21 Hill St. St. Neber, Jersey (C.1.)
22 Hill St. St. Neber, Jersey (C.1.)
23 Hill St. St. Neber, Jersey (C.1.)
24 Hill St. St. Neber, Jersey (C.1.)
25 Hill St. St. Neber, Jersey (C.1.)
26 Hill St. St. Neber, Jersey (C.1.)
27 Hill St. St. Neber, Jersey (C.1.)
28 Hill St. St. Neber, Jersey (C.1.)
29 Hill St. St. Neber, Jersey (C.1.)
29 Hill St. St. Neber, Jersey (C.1.)
20 Hill St. St. Neber, Jersey (C.1.)
20 Hill St. St. Neber, Jersey (C.1.)
20 Hill St. St. Neber, Jersey (C.1.)
21 Hill St. St. Neber, Jersey (C.1.)
22 Hill St. St. Neber, Jersey (C.1.)
23 Hill St. St. Neber, Jersey (C.1.)
24 Hill St. St. Neber, Jersey (C.1.)
25 Hill St. St. Neber, Jersey (C.1.)
26 Hill St. St. Neber, Jersey (C.1.)
27 Hill St. St. Neber, Jersey (C.1.)
28 Hill St. St. Neber, Jersey (C.1.)
29 Hill St. St. Neber, Jersey (C.1.)
29 Hill St. St. Neber, Jersey (C.1.)
20 Hill St. St. Neber, Je +0.7 -81 estments (Bermada) Ltd Schroder Life Assurance Ltd. Externise House, Porismonts. -02 -05 Fig. 183.

Fro. 183.

183.

184.

Fro. 184.

184.

185.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186.

186 | CCM Vacquery Reput | CPG | CPT | C Hambre Pacific Fund Nigmt. Ltd. Newport International Management Bank of Bermusa Bidg, Bermusa. 609 2 Hambros Fd. Myrs. (C.I.) Ltd. P0 Eos 8c, Guermey. Co. Ltd 0452 500500 enes A --1776 --1061 --1549 --1420 --1420 --1420 --1420 --1519 --1525 --1425 --1425 --1425 --1425 --1425 --1425 --1425 --1425 Commodity Advisory Service (IoM) Ltd 48 Admi Street, Douglas, IoM. D624-20845 Comm. & FF Act. D8.70 40.60 Comm. & FF Fant. D8.70 40.60 Comm. & FF Fant. D8.70 Admin Service Se FIE 0892 41466 F. w.—... Scottish Life Investments 19 St Amires Square, Edinburgh. 031-225 2211 03-252 108 -013 1281 -15 118-1 -15 1116 -17 1124 -11 1124 -01 1124 -01 1124 -01 1124 -01 1124 -01 1124 -14 1124 -1 Scottish Motual Assurance Society 109 St Vincent St, Glasgow. 041-248-6321 | 1997 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | 1998 | \$1.4652 +0.0002 9.66 \$1.0138 +0.0002 9.66 \$1.1531 +0.0077 8.00 \$0.8647 +0.0059 8.00 \$21.49 Pers. Flood Int. [as. 102.6 De. Grd 107.2 Pers. Index-Lint. 107.2 De. Grd 108. 106.7 Pers. Cash Inst. 106.7 M & G Group The second secon 譜 OFFSHORE AND

i'oui }_n

.

3

•

M.W

a þi

49

and the second

المكنا من المهل

۲.

Financial Times Monday April 15 1908

Financial Times Monday April 16 Financial Times Monday April 15 1985 31 INDUSTRIALS—Continued LEISURE—Continued PROPERTY—Continued INVESTMENT TRUSTS-Cont. OIL AND GAS MINES—Continued Proce and Met C'ur-Go's PrE Last Dry Price as Het Price Isl Net Cyr Grs PE Des. Aprillering & Strit, Iron.

Sept. Mar. Ling. & Strit, Iron.

Jan. Mar. Ling. & Strit, Iron.

Jan. Mar. Ling. & Strit, Iron.

Ling. Strit, Mar. Ling. & Strit, Iron.

Des. Johy & E. Althance Iro.

Ling. Strit. Iron.

Ling. | 102 | 25.2 | 12.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1. May Mara Corp Sa \$1.50 ...

Jan Jolylangia Amer. 10c ...

May Oct Jang Am. 600 811 ...

Feb. Aug. Janghangia Soc ...

July Charrier Cons. 20 ...

- Oct Jang Cons. 601 10c ...

- Oct Jang Cons. 601 10c ...

- Oct Jang Gold Feels ...

- Oct Jang Cons. 10c ...

May Dec Cons Gold Feels ...

- Oct Gold Feels ...

- April East Rand con. 10c ...

Mosember Scriber R1 ...

Oct May General 40c ...

- Sold & Base 121;0

Mar Oct Gold Feels S. A. S. ...

Feb. Det. John Joy Gors R2 ...

Aug. Feb. Middle Wit 25c ...

May MocManorto 8801 40 ...

Mar. Sept New With 50c ...

January Rand Min Prop. R1 ...

Jeny Lan T was Long Lot R1 ...

Sent. May Mogets 21;c 495 28 9 14 :-24 :-10 :-Gerent Eartern Min

William Learn M. 20c.

What here is been in Gui

What here is been in L

What here is l.

What here is l. 04c - 11 05c o 18 Tins \$ 250 | 25.2 | m0100| 10 | 18.7 | 12.0 | 22 | 7.9 | 12.5 | 14.1 | \$10.06 | 0 | 15.7 | 12.0 | 22 | 7.9 | 12.5 | 14.1 | \$10.06 | 0 | 45.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | Miscella Angio-Dominion Wiscella
Angio-Dominion Wangio Urd. Dev.
Weemtermal Mer t.
Wolling Res Corp.
Aug. Feb. Cors. Nurch. 10c.
Hermer Int. (1-10)
Winecensich Res. Inc.
Feb! Lampion Areas 10p.
Willphoson Res.
May. Angi-Homesahe Mamp St.
White-Fully Red Liber.
White-Sulfy Red Liber. **OVERSEAS TRADERS** | OVERSEAS TRADERS | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 18 72 | 1 | May | Oc. Lincis Wm. | 27 | 11.0 | 46 | 5.3 | 6.8 |
| Oc. | Apr. | Renrin | 179 | 55.2 | 6.10.0 | 16 | 80 | (9.3)
Dec.	July Decar Wiese, 20a	48	11.0	11.5	11.4			
Apr.	Dec.	Do. W MV 10a	165825.3	51.5	48	51.4		
Apr.	Dec.	Do. W MV 10b	165825.3	15.5	48	51.4		
Apr.	Dec.	Do. W MV 10b	165825.3	15.5	48	51.4		
Apr.	Dec.	Do. W MV 10b	165825.3	16.5	48			
May	Mov.	Sime Darby MS9.5	69	11.0	(90108c)	1.6	6.3	0.9
Jan	July Steel Bros.	50	24.10	13.0	27	3.5	11.8	
Tozer Kens. 20p	33	482	- 4.9	135 09 31				
08 4 17 17 18
18 18 19 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 18 18
18 18 **PLANTATIONS** Rubbers,
Jan Augjangio-Indones'n
Sapake Bosance 79
September Bertam 10p
Apr. Nov. Cons. Plants MSU.5
Grand Central 10p
Apr. September MSU.5
Nov. Maghiliphants MSU.5
Apr. Nov. Kupila Kgong MSU.
Apr. Nov. Kupila Kgong MSU.
Apr. Oci. Plants MSU.
Joly Rowe Evans Im. 10p
Joly Rowe Evans Im. 10p | Feb. | Aug. | Mirates force | Aug. | Sept. Verman | Sept. | Do. Warrans | Sept. Verman | Sept. | Sept. Verman | Sept. | Sept. Verman | Sept. Augest Assam Docars CT November Lawrie Grp. £1.
November Lawrie Grp. £1.
Nay SeptiMcLeed Rossel £2.
Apr. Oct. Da.B. Acctow.Pl. 90-92.
May Nov. Moram £7.
July Novi Moram £6.
July Novi Moram £6.
July Novi Moram £6. 940 8.6 6.0 1.7 0.9 cm 1.5 1.0 3.0.0 4.4 2.4 245 24.12 16.75 4.5 3.4 192 11.3 8.4 9.7 5. 6.2 800 11.3 92.2 0 9.1 2.4 9.5 24.12 20.0 3.9 3.7 2.5 24.12 20.0 3.9 3.7 Finance, Land, etc | Part | Ang. Feb. Durban Deep R1.
East Rand Prp. R1.
Egol Cose.
Aug. Feb. Randfort* of Es. 82
Singer & Jack 190.02
Ang. Feb. West Rand R1. Moritansken 90c.

PCons Moritein Sc.

East Dauga Ri.

East Dauga Ri.

East Dauga Ri.

Feb. Groovel 25c.

Nov. Lesie 65c.

Feb. Marceale 80.25

Feb. Walforsten 35c.

Feb. Valiforsten 35c.

Nov. Moritein 80.25

Feb. Valiforsten 35c.

Nov. Moritein 80.25

Feb. Valiforsten 35c.

Nov. Worlden 80.25

Feb. Valiforsten 35c.

Nov. Worlden 80.25

Nov. Wo | Quoted in Irish currents | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1733-2 | 1 Far West Rand

Aug Blywor 25c.

Aug Baffeis R1.

Aug Deeltraal R0.20.

Aug Deeltraal R0.20.

Aug Deeltraal R0.20.

Aug Deeltraal R0.20.

Edd. 241 2 70576; 30 b.7

Aug Deeltraal R0.20.

Edd. 241 42 75c 1.5

Aug Baffeis R1.

Edd. 241 102 75c 1.5

Aug Baffeis R1.

Edd. 314 1 1072; 1.6

Aug Baffeis R1.

Edd. 314 1 1072; 1.6

Edd. 314 1 1073; 1.6

Edd. 314 1 1072; 1.6

Edd. 314 1 102 1.6

Edd. 314 1.6

Edd. 314 1 102 1.6

Edd. 314 Property
Brit Land
Cap Courses ...
Land Secs
MEPC
Peachey
Samuel Props ... Same Prior 14
Olis Brist Di & Mie ... 4
Brist Petroleum ... 42
Bernan Di ... 28
Createrhal ... 6
Premer ... 5
She' ... 150
Triscentral ... 19
Ultianar ... 19 Platinum £05,22101 0590d 1.0 16.0 £08,225,31 0200 \$ 13.0 £08 [24] . 0200 \$ 16.0 950 [13] 01550 17 466 570 0133 0500 \$ 13.0 760 11.2 1 70600 18 3 4 This service is available to every Company dealt in on Stack Exchanges throughout the United Kingdom for a fee of £800 per

Was Aller

1.10.10%

i kanated

n i united

ande de Pair

....resellsche

international

lustral Linds

dronal Lints

are & Coll

Energy Recovery Investment Corporation S.A.

In connection with the forthcoming Annual General Meeting to be held on 24th April 1985 at 20 Boulevard Emmanuel Servais, Luxembourg, the 1984 Annual Report and Accounts are being sent to the shareholders. Copies of the Annual Report and Accounts can be obtained during normal business hours from:-

> County Bank Limited, 11 Old Broad Street, London EC2N 1BB

Rowe & Pitman 1 Finsbury Avenue. London EC2M 2PA W. Greenwell & Co., Bow Bells House, Bread Street, London EC4M 9EL

Banque Privée S.A., 20 Boulevard Emmanuel Servais. PO Box 474 L-2014, Luxembourg

Energy Recovery Investment Corporation S.A.

In connection with the forthcoming Extraordinary General Meeting to be held on 24th April 1985 at 20 Boulevard Emmanuel Servais, Luxembourg, a letter is being sent to shareholders setting out the reasons for the proposals to be put. to shareholders. Copies of this circular can be obtained during

> County Bank Limited, 11 Old Broad Street, London EC2N 1BB

Rowe & Pitman 1 Finsbury Avenue London EC2M 2PA

W. Greenwell & Co., Bow Bells House, Bread Street, London EC4M 9EL

Banque Privée S.A., 20 Boulevard Emmanuel Servals, PO Box 474 L-2014,

Standard Chartered

announces that on and after 12th April 1985 its Base Rate for lending is being decreased from

13½% to 12½% p.a.

The interest rate payable on deposit accounts subject to seven days' notice of withdrawal will be decreased from $10\frac{1}{4}\%$ to $9\frac{2}{4}\%$ p.a. The interest rate payable on High Interest deposit accounts subject to twenty-one days' notice of withdrawal will be decreased from 111 to 102%p.a.

Standard & Chartered

MORGAN STANLEY INTERNATIONAL

BARING BROTHERS & CO., LIMITED

DAIWA EUROPE LIMITED

MORGAN GUARANTY LTD

Company Announcements Office,

The Stock Exchange,

Throgmorton Street, London, EC2P 2BT.

April 17, 1985 only)

CURRENCIES, MONEY and CAPITAL MARKETS

FINANCIAL FUTURES FOREIGN EXCHANGES U.S. TREASURY BONDS 8% \$100,000 32nds of 100% LONDON Close High Low Prev June 70-25 71-08 70-25 70-25 Sept 69.25 70.05 69.25 Est, Volume 2,502 (1.198) Previous day's open int, 3,300 (3,300) THREE-MONTH EURODOLLAR Close High Low Frev 90.77 90.84 90.78 90.70 90.22 90.31 90.21 90.13 89.74 89.62 89.74 89.65 10.83.35 89.40 89.35 89.25 89.04 99.35 89.25 Volume 6,125 (7,148) lous day's open int. 18,475 (16,475) was about to stage one of its sudden recoveries just at a time when sentiment had seemed to be running strongly against the end of the week, as well as the weekly and monthly money duce price index rise was good, indicating that U.S. inflation indi CHICAGO U.S. TREASURY BONDS (CBT) 8% \$100,000 32nds of 780% Points of 100%.

Close High Low Prev Sept 8.27 88.35 88.22 88.15 Dec 89.06 89.13 89.03 89.05 89.13 89.10 89.15 89.13 89.18 89.10 89.15 89.13 89.18 89.10 89.15 Warch June 10.10 10.1 June 89.13 Est. Volume 2.073 (1,510) Previous day's open mt, 5,687 (5,687) U.S. TREASURY BILLS (IMM) Sim points of 190% 20-YEAR 12% NOTIONAL GILT 250,000 32nds of 100% Close High Low Prev 91.80 91.89 91.79 91.80 91.33 91.43 91.31 91.33 90.88 90.97 90.87 90.90 90.54 90.67 90.64 90.66 90.28 90.35 90.28 90.26 90.06 90.10 90.04 80.05 89.81 89.86 89.81 88.81 (OUS Cey As quots (clean passing 2003 less equinally provided to the provided

June 0.3885 0.3927 0.3885 0.3885 Est. Volume 4 (nil) Previous day's open int, 157 (157) JAPANESE YEN Y12.5m S per Y100 Ciese High Low Prev 0.3990 0.3882 0.3987 0.3985 0.416 — 0.4014 Volume 200 (nil) ous day's open int. 559 (569) June 127.70 127.70 125.90 127.20 Sept 128.45 — 127.95 Frst. Volume 152 (135) Previous day's open int. 1.118 (1,118)

WEEKLY CHANGE IN WORLD INTEREST RATES April 12 change NEW YORK
Prime rates 101g
Federal funds 8.03
-0.417 6 Mth. Treasury Billa 8.05
Unch'd 5 Mth. C D 8.65
Unch'd PRANKFURT
Unch'd Lombard 6.0
-14 One Mth. Interbank 5.775 124-13 One Mth. Interbank One month Bills Three month Bills BRUSSELS MILAN One month Three mont One month Three month DUBLIN
One month
Unch'd Three month AMSTERDAM One month Three month

Loadon—bend 1 bills mature in up to 14 days, band 2 bills 15 to 33 days, and band 3 bills 34 to 63 days. Rates quoted represent Bank of England beying or selling rates with the money merket, in other contras rates are generally deposit

US\$200,000,000 Guaranteed Floating Rate Notes at the Option of the Holder at par Commencing Oct

Citicorp Overseas Finance Corporation N.V.

rated with braited liability in the Netherlands Antitles Unconditionally guaranteed by

en that the Rate of Interest has b 8¹⁵/16% and that the interest payable on the relevant Interest Payment Date, July 15, 1985 against Coupon No. 21 in respect of US\$10,000 naminal of the Notes will be US\$225.92.

April 15, 1985 London CITIBANCO By: Citibank, N.A. (CSSI Dept.), Agent Bank

Dollar's recovery halted

There was a suspicion before Two important economic the Easter holiday that the dollar was about to stage one of its sudden recoveries just at a sudden recoveries just a

Note Rates

POUND SPOT-FORWARD AGAINST POUND

	Day's			74	Three	- %
April 12	spread	Clos	One month .	p.a.	months	p.a.
J.S.	1.2450-1.2610	1.2565-1.2575	0.44-0.41c pm	4.06	1.18.1.13pm	3.68
Sbanada	1,7024-1,7200	1.7575-1.7125	0.40-0.32c pm	2.53	1.15-1.03pm	2.55
lethind.	4.314.4.35\	4.3312-4.3412	21/2-2c ptg	5.88	6157. pm	5,53
Selgrum	76.91-77.68	77.35-77.45	22-17c pm	3.02	58.47pm	2.66
enmark	13.811-13.841	13.764-13.774	25-25 ore pm	2.07	10-83-pm	2,67
reland	1,2225-1,2308	1.2270-1.2280	0.05ppm-0.11dis	-0.29	.20pm22ds	03
V. Ger	3.811-3.85	3.84-3.85	25-25pf pm		614-614 DIII	6.44
Caputio	2124-2184	214-218		~20.14	540-1550ds	-19.35
Pain	212-2142	214-2143	par 25c dis		40-80dis	-1.12
taly	24401-24841		per-Stire dis		7-12d/s	-7.55
lorway	11.041-11.13	11.06-11.07	14-ore pm-4-lire	-0.47	apm-adis	-0.05
fance	11.6611.76	11.70-11.71	212.2c pm		5°-5'-pm	1.88
weden	11.151,11.247		uore pm-13 dis		1'4-2'adis	-0.72
8ban	312-316	315-316	1,79-1.69y pm		4.88-4.75pm	6,10
ustria	26.65-27.01	26.90-27.00	137 ₈ -12 agre pm	5.78	37-33 ¹ 40m	5.21
WIZ.	3.204-3.234	3.22-3.23	21-2c pm		53-51 ₂ pm	6,98
			francs. Financia	1 franc	77 95-78 05.	
6.	sidital lare to s	ed dollar 1 89-1	.83c pm. 12-ma	nth 2.3	0-2.15c am.	
31	v-folicities interes				p	
THE	R CURRE	NCIES				

26.76-27,00 77.15-77.90 13.69-13.85 11.65-11.76 3.8114-3.8414 2435-2470 314-319 4.8114-4.363 * Selling rate.

EMS EUROPEAN CURRENCY UNIT RATES

rates agalost Eco April 12 +0.37 -1.55 -0.28 -0.71 +0.14 -1.62 +1.87 ±1.5522 ±1.6419 ±1.1476 ±1.3669 ±1.5171 ±1.6703 ±4.0410 45.0688 8.01491 2.23559 6.82553 2.52957 Belgian Franc ...
Danish Krons ...
German D-Mark
French Franc ...
Outch Guilder ...
Irish Funt
Italian Lira 8.14104 2.24184 6.87456 2.52595 0.72569 1403.49 Changes are for Ecu. therefore weak currency. Adjustment cale

economic recent weeks, and by putting less money into consumers' pockets may have also hir sales of goods

in the shops.

On Friday the dollar finished in London at DM 3.0510, the lowest closing level this year.

STERLING EXCHANGE BATE April 12 Previous 8.30 am 10.00 am 78.4 78.3 2.00 pm

	April 12	prev. close
5 months	21,2500 1,2520 0,44.0-48pm 1,14 1,12pm 2,23 2,15pm remiums and of the U.S. D	(\$1,2568 1,2568 0.43 0.42pm 11.17-1.14pm 2.15 3.05pm disposata ampli piter.

 $\Pi^{[i]}$ market : time (!::hace"

į, r

AND THE PLANT OF T

a 13≥

piziti ISC S Ight s

district.

mar^t.

Bull talk !

pe 11:3

स्पृत्यम् । स्पृत्यम् ।

fina . Euros

made 7

500 30

FORWARD RATES AGAINST STERLING 1 month 1.2528 3.8221 77.6823 3.2046 313.76 6 month 1 2365 3.7333 11.6313 3.1227 306.76

BANK OF ENGLAND TREASURY BILL TENDER

_						
L.		April 12	, April 4	1	April 12	April 4
88 55 53 66 67	Bills on offer	£100 m	£100m	Top Accepted rate of discount.	11.9527%	12,3540
	Total of applications Total allocated	£356m £100m	£420m £100m	Average	11.8926%	12.3401 12.73e
03 44	Minimum cocepted bid	£97.02	£96,92	Average yield Amount on offer at next tender		£100m
35 12	Allotment at ::	25%	£09	I		

DOLLAR SPOT-FORWARD AGAINST DOLLAR

April 12	Day's spread	Close	One month	р.а.	months	<u> 9-a.</u>
UK† Ireland† Canada Nethind Belglum Denmark W. Ger Portugal Sain Italy Norway Franca Sweden Japan Austria Switz.	1.2450-1.2610 1.0145-1.0260 1.3627-1.28 3.4390-3.4850 61.23-82.03 10.90-11.04 3.0410-3.0825 1714-172 1,764-172 1,764-1,967 8.784-854 9.301-9.381 250-50-251.80 21.384-21.585	1.2565-1.2575 1.0220-1.0220-1.0220-1.025 1.3655-1.3675 3.4520-3.4530 81.50-61.70 11.02\(^1.02\(^1.02\) 3.0605-3.0515 171'±-137 170'±-171 1.955-1.957 2.84\(^1.02\) 2.31\(^	0.44-0.41m pm 0.42-0.32p pm 0.16-0.19c dis 0.51-0.48c pm 6-7c dis 12-12pre dis 0.70c dis 90.70c dis 91-91m dis 21-31-pm dis 1.35-1.45c dis 31-31-pm dis 0.55-0.51y pm 0.78-0.72c pm	4.34 -1.54 -1.27 -1.54 -2.88 -20.58 -4.57 -5.36 -4.07 -1.80 -4.70 2.53 1.74	190-210dis 261,-27dia 71-81:dia 4.00-4,40ds 10-101:dis 1.60-1,55pm 91,-71; pm 2.75-2.09 pm	2.89 -1.14 -1.04 -1.05 -2.73 -
4 11K	and trained a	re augred in U	S. currency.	Forward	premiuma al	78

T UK and Ifeland are quoted in Co., dollar and not to the individual currency, discounts apply to the U.S. dollar and not to the individual currency, Belgian rate is for convertible france. Financial franc 62.00-62.10.

CURRENCY RATES **CURRENCY MOVEMENTS** Bank Special European April 12 rate Drawing Currency 2 Rights Unit Bank of Morgan England Guaranty Index Change & Sterling 0.782507 0.583683 U.S. 8. 0.993533 0.728588 Canadian S. 10.52 0.993533 0.728588 Canadian S. 10.52 0.994123 Canadian S. 10.52 0.994123 Canadian Fr. 11 61.3805 45.0668 Danlah Kr. 7 10.9015 18.01491 Dmark 412 N/A 2.23569 Guilder 51.09478 2.53987 French Fr. 1512 1947.82 1439.80 Yen. 5 1512 1947.82 1439.80 Yen. 5 1512 1947.82 1439.80 Yen. 5 169.843 134.84 Swedish K. 9 8.85983 1.87787 Norway Kr. 8 8.85983 1.8484 Swedish K. 9 8.85983 1.87787 Yens Fr. 4 9.85994 1.87787 N/A 97.28307 Irish Punt. 124 0.974630 0.71462 78.4 | -11.4 145.8 | +30.8 88.1 | -6.5 112.6 | +5.4 89.2 | -10.8 77.7 | -5.4 122.0 | +6.9 159.5 | +8.1 122.1 | +3.0 64.9 | -15.4 48.3 | -16.9 154.5 | +11.1 Morgan Guerenty changes: #verage 1980-1982 = 100, Bank of England Index (base average 1975=100).

EXCHANGE CROSS RATES

ADTII 12	LOUIS OF THIS	1 5:9: Pales	Designation is	, o penioso 101	TO TO THE TOTAL		3			
Pound Sterling U.S. Dollar	0.796	1.	3,845 3,051	315.5 260.9	11.71 9.515	8,325 1,566	4,340 3,458	2459. 1967.	1.710 1.560	77,40 61.60
Deutschemark	0,260	0.327	1.	82,05	3,044	0,839	1,129	639,5	0.445	20,13
Japanese Yen 1,000	8,170	3.984	12.19	1000.	37,10	10,22	13.76	77 94 ,	6.420	245.3
French Franc 10	0.854)_074	3,285	269.5	10,	2.755	3.708	2101.	1.461	66.13
Swiss Franc	0.310	0.390	1,192	97.83	3,629	1,	1.346	762.5	0.530	24,00
Dutch Guilder	0,230	0.290	0,886	72.70	2.697	0,743	1.	566,6	0,394	17.83
Italian Liira 1990	0,407	0.511	1,564	128.5	4.760	1.312	1.765	1000.	0.695	31,48
Canadian Dollar	0,585	0.735	2.949	184,5	6,846	1.886	2,538	1438	2,209	45.26
Belgian Franc 100	1,292	1.624	4.968	407.6	15,12	4.167	5.607	3177.		100.33716

EURO-CURRENCY INTEREST RATES (Market closing rates)

- Apr. 12	Sterling	U.S. Doltar	Canadian Dollar	Dutch Guilder	Swiss Franc	D-mark	French Franc	Italian Lira	Belgia	n Franc	Yen	Danish Krone
Short-tarm 7 day's notice Month Three months Six months One year	1549-1556 (15-154, 1279-1376 1259-124, 124-1259 1176-12	84 84 84 84 84 84 84 84 84 84 984 984 94 94	95g-101g 95g-101g 91g-10 91g-101g 91g-101g 101g-101g	678-7 678-7 678-7 678-7 678-7 678-7	2-24 2-214 518-514 515-515 516-512	53g-51g 51g-51g 51g 51g 57g-6 0-51g 61g-51g	103g-101g 103g-101g 101g-101g 105g-103g 107g-11 113g-111g	13-14 131-1414 135g-141g 14-141g 143g-1414 145g-151g	10-10t ₄ 10-10t ₄ 97 ₈ -10t ₈ 97 ₈ -10t ₈ 97 ₈ -10t ₈ 10t ₄ -10t ₉	10-1014 10-1014 93-10 976-1018 1019-1038 1014-1019	6/3-6/3 6/3-6/3 6/3-6/3 6/3-6/3 6/3-6/3 6/3-6/3	101e-11 105e-11 105e-105g 101e-105g 101e-105g 104e-105g

Asian \$ (closing rates in Singapora): Short-term 85-84 per cent; seven days 85-85 per cent; one month 81-84 per cent; three months 81-85 per tent; ix months 9-85 per cent; one year 95-94 per cent. Long-term Eurodollars: two years 102-104 per cent; three years 112-115 per cent; four years 112-115 per cent nominal. Short-term rates are call for U.S. dollars and Japanese yen, others two days' notice.

MONEY MARKETS

Bank discourages further rate cuts

Barclays Bank eventually cut its base lending rate to 12½ per cent from 13½ per cent on friday, in a move quickly followed by Midland Bank. This came as little surprise to the money market, following a period of steadily declining wholesale money rates, but continues to leave the general structure of UK interest rates untidy. The other two major high street banks, National Westminster and Lloyds Bank, were deterred from leap-frogging deterred from leap-frogging down to 121 per cent by the attitude of the Bank of England, which declined to even endorse the 121 per cent base rate. The week began quietly enough in fairly comfortable con-

ditions on the money market, amid signs that Gerrard & National, one of the two big

April 11	Frankfurt	!	Zurich	Amst'dam	Tokyo	Milan	Brussels	Dublin
Overnight. One months Two months Three months Six months Lompard. Intervention	6.70-5.85 5.85-5.00 5.95-5.10 6.05-6.25 6.0	101 ₂ 101 ₂ -103 ₄ 101 ₂ -103 ₅ 101 ₂ -103 ₅ 101 ₃ -101 ₅	5 6-54 5-54 5-6-558	678 7 668-7 612-613 678-7	6.15625 6.21675 6.28125	151 ₄ -155 ₆ 147 ₈ -151 ₄ 151 ₈ -151 ₈	10.80 97g-101g 97g-101g 10-1014	.13 Li-15 to
LONDON MONEY	RATES		Disc	ount Ho	uses D	eposit a	and Bill	Rates

UK clearing banks base lending rate 127-13 per cent since April 12

discount houses, was a more willing seller of paper after the end of its financial year. On Wednesday rates continued to fall, leading to hopes of lower

FT LONDON INTERBANK FIXING

(11.00 a.m. April 12) bld 8 8/4 offer 8 7/8

Six months U.S. dollars

bid 9 1/16 The fixing rates are the arithmetic means, rounded to the nearest one-exteenth, of the bid and offered rates sixteenni, gr the did and offered rates for \$10m quoted by the market to five reference banks at 11 am each working day. The banks are National Westminster Bank, Bank of Tokyo, Deutsche Bank, Banque Nationals de Paris and Morgan Guaranty Trust.

houses seven days, notice, others seven days, fixed. Finance Houses Basta (published by the Financ Houses Association): 14 per cent from April 1985. London and Scottish Clearing Bank Rates for lending 124-13 per cent London Deposit Rates for sums at seven days, notice 7-79 per cent (net Treasury Bils: Average tender rates of discount 11.828 per cent. Certificates of Tax Deposit (Series 6): Deposits £100,000 and over held under one mont 134 per cent: one-three months 13 per cent; three-six months 124 per cent. 115- per cent from April 12. Deposits held under Series 5 12 per cent. Under £100.00 115- per cent from April 12. Deposits held under Series 5 12 per cent. The rat for all deposits withdrawn for cash 8 per cent.

125a 125a 121g 1219 1219 18 --121s 121s 12 111s 184 184 184

MONEY RATES

NEW YORK (4 pm)

	Local Auth- negotiable bonds		Finance House Deposits	\$ Cert of Deposits	SDR Linked Deposits	EGU Unked Deposits
month	154-1978 13-1246 1246-124 1259-12 1259-12	 11/2 11/4 11/4	13년 18년 18년 12	8.45 8.56 8.55 8.65 8.55 8.75 8.55 8.85 9.15 9.85 9.45 9.55	8 6 8 6 8 6 8 6 8 6 8 6	915 918 915 978 915 978 916 914 976-10
ECGD Fixe	d Rate Ex	port Financ irva): 13.61	e IV: v	erage Ray	e of Inter	est period

131g-133g 13-131g

1212 13

1214

13-131, 15 125, 125,

ings 00 "330 - 6 Hanson Irust... "57

April 15, 1985

Cazenove & Co., London, EC2R 7AN.

UNION BANK OF SWITZERLAND (SECURITIES)

Application has been made to The Council of The Stock Exchange for the Notes in Bearer form in the denomination of £1,000 each, or in Registered form in denominations of £1,000 each, or integral multiples thereof, with an issue price of 48.00 per cent., to be admitted to the Official List, subject only to the issue of the temporary Global Note.

Particulars of the Notes, the Issuer and the Guarantor are available from Extel Statistical Services Limited. Copies of the listing particulars relating to the Notes have been published and may be obtained during normal business hours

on any weekday (Saturdays and public holidays excepted) up to and including April 29, 1985 from:

This advertisement is issued in compliance with the requirements of The Council of The Stock Exchange. It does not constitute an offer of, or invitation to the public to subscribe for or to purchase, any securities.

£60,000,000

Redland Finance PLC

ZERO COUPON NOTES DUE 1992

Payment of principal unconditionally and irrevocably guaranteed by

Redland PLC

(Incorporated in England under the Companies Acts 1908 and 1913 registered number 137294)

The following have agreed to subscribe for the Notes:

Bankers Trust Company, Dashwood House, 69, Old Broad Street, London, EC2P 2EE.

MORGAN GRENFELL & CO. LIMITED

DEUTSCHE BANK AKTIENGESELLSCHAFT

SWISS BANK CORPORATION INTERNATIONAL

S. G. WARBURG & CO. LTD.

 $a_{\theta_{12}}$

 $p^{i_0\sigma^{(i)}}$

 $\mathfrak{A}_{\mathbb{G}_{G,\frac{1}{2}}}$

 ∂H^{-1}

15 togs

FINANCIAL TIMES SURVEY

Professional Personal Computers

THE LONG expected shake-out in the professional personal computer market place has begun and nothing can turn back the clock. By the time the upheaval is over, the shape of the personal computer industry will have - yet again - changed dramatically.

In less than a decade, this industry has grown from nothing to a billion dollar business and gone through three major changes of emphasis on the way.

about 1974 with the launch of the first hobbyist microcomputers, often in kit form, like the Altaire.

 The second and most significant phase was marked by the launch of the Apple II around 1977, perhaps the first true personal computer, and its use by accountants and others to run Visicale, best-known of all

Personal Computer (PC). That machine, and other manufac-turers machines designed to run identical software ("com-patibles") had some 45 per cent of the U.S. market and close to 30 per cent of the European market by the middle of 1984.

There has been a tendency for certain machines to be associated with particular pieces of software; a large number of the IBM PCs purchased were acquired to run an "integrated" software package called 1-2-3 from the Lotus Development

Corporation. The Lotus package, which generation of development, this made it possible for the executive to move easily between further extended to comprise a spreadsheet, data files and range of more-or-less specialist graphics, moved personal com-

By ALAN CANE

functionality of the package, by adding word processing and communications capabilities, have not proved so immediately successful.

Now the personal computer is the spreadsheet-style financial about to assume the role of written in Cobol, the common office work station, building business orientated computer in the personal computer blocks of the office of the professional personal computering, was initiated by IBM in 1981 with the launch of its own Personal Computer (PC). The personal computer is Business computer software written in Cobol, the common business orientated computer language, is created these days programmers working at president for strategies at Olivetti, has forecast that within it wo years. Dine out of ten in two years, nine out of ten which is expensive in computer North American office workers will have electronic workstations, and four out of ten Europeans.

The New York-based market
Now software houses like Micro Focus in the UK and Cap Gemini Specific in France have

The New York-based marketing consultancy, Frost and Sullivan* point out that the roles of intelligent terminal, word processor and business graphics workstation have now been added to the personal com-puter's introductory role as a dedicated applications engine for a single user—its use in

It adds: "During its next puting forward a massive step. executive, designer, compute Efforts further to increase the programmer and undoubtedly

many more. Personal computers will additionally be found as "drivers" of a variety of program controlled devices for which mini or micro-computer based boards had previously

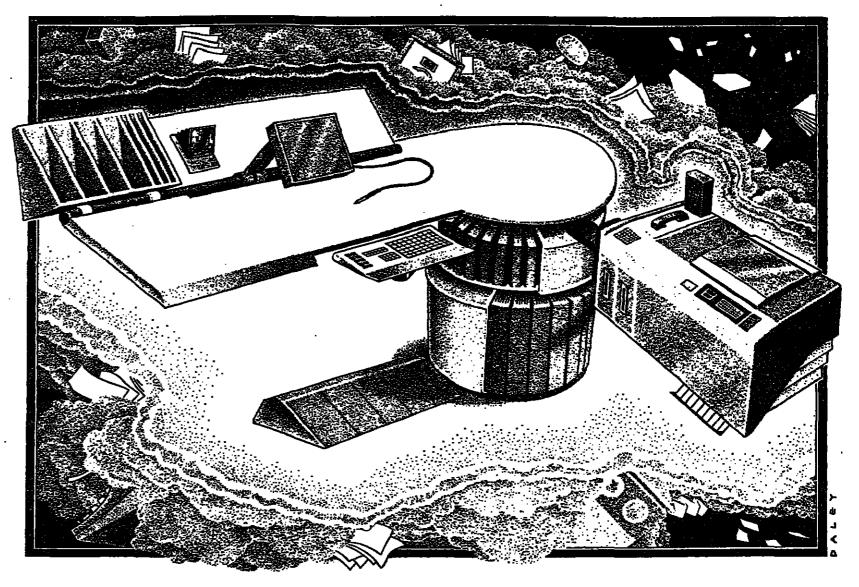
Examples of the diversity of uses to which the professional personal computer are now

Programmers' workstations:
 Business computer software

Gemini Sogeti in France have developed ways in which programmers can write, edit and test Cobol programs on a personal computer before transmitting them to the mainframe

Treasury workstations: Banks are selling aggressively the concept of "cash management" to their corporate clients which means the installation of a computer terminal in the treasurer's office on which he or she can inspect

CONTINUED ON PAGE 2

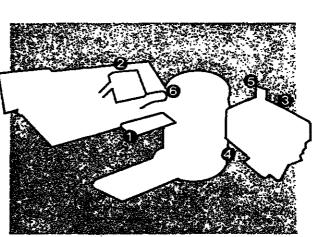


Upheaval under way in a billion dollar business

● In this survey: the international scene—market developments in the U.S., Britain, France West Germany, Italy, Japan and the Soviet Union Pages 2 to 5

● Hardware technology: the impact of technical developments in a fast-changing industry

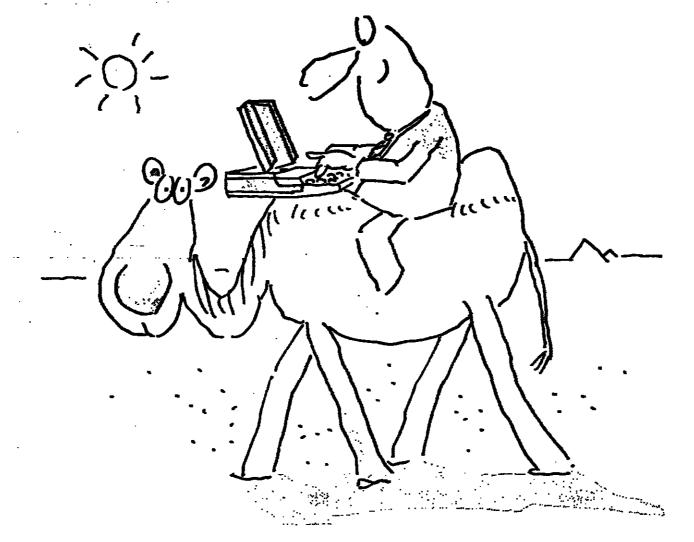
Software: new operating systems, networking, micro-mainframe links; expert systems, case studies and



The work station of the future

TODAY'S personal computer is set to develop into the workstation of the future where voice, text, image and data processing are integrated into one

multi-purpose unit.
The visionary system, indicated above, may well include: 1. keyboard; 2, screen; 3, facsimile/copier/ page-printer/digital reader facilities; 4, electronic storage; 5, voice link; and 6, light pen.



The new DATA GENERAL/One. The only industry-standard PC you can use on a camel.

The new DATA GENERAL/One portable computer is really going places. Quite apart from being powered by mains electricity, it will run for up to 8 hours using rechargeable batteries.

Suddenly, all those hours spent on trains and being driven between meetings become valuable working time.

All the more valuable because at around 10lb. the DATA GENERAL/One is the only portable of its kind that gives industrystandard performance. That means it's completely compatible with a wide range of all the way.

IBM® PC software: including Wordstar,® Lotu 1-2-3™ and dBase II.®

And like desk-top computers (but

unlike most other portables) it has a full-size 25-line high definition screen.

The DATA GENERAL/One also has 512KB memory, almost 1.5MB of integral disk storage and the ability to communicate with mainframes (either directly or from remote locations over telephone lines).

If you're investing in a portable compute its worth buying the one that supports you

s	
e	
a k h	
u	
ks	

For full details and the name of your nearest Dealer post this coupon to: Dealer Operations, DATA GENERAL Limited, 7 Kenrick Place, London WiH3FF. Or telephone Pat Cunningham on 01-935946L

Data General a Generation ahead.

Alan Cane highlights Olivetti's six-point strategy which aims to make it the European alternative to IBM.



Olivetti Group			
Financial highlights	1983 3,736.2	1982 3,342.4	+11.8
Revendes	187.2	162.2	+14.9° +13.4
Research and development expenses			. 404.5
	468.3	337.1	+ \$8.9
Operating Profit % average invested capital	20.6	17.0	
	295.3	102.8	
Net Profit	7.9	3.1	
% revenues % average stockholders equity	27.4	18.4	
Earnings per share (in lire)	857	318	
Dividend per share (in lire)			
Dividend her arms (m m)	240	200	• '
common and preferred saving	260	220	·
Internal Finance	616.6	380.8	
* On comparable basis		Spurce	: Olivett

Sig Vittorio Levi (left), Olivetti's vice president, group operations, and (centre) final tests being made on the Olivetti M24 personal computer at the group's Scarmango plant.

Olivetti gears up for a global market place

OLIVETTI'S SCARMAGNO plant, surrounded by the Benedetti was appointed chief in the U.S. Italian Alps and currently turning out 25 M24 personal executive officer. Profits in 1979 in the U.S. Inevitable computers every hour would not seem out of place in were only L33.3bn and the ratio some strain. computers every hour would not seem out of place in

Driverless trucks, guided by electrical impulses carried by wires under the floor, move sub-assemblies from one location to another. Control computers—

in which Mr Carlo De Benedetti, its charlsmatic chair-

man, and his able lieutenants

Mr Elserino Piol, vice-president

for corporate strategy, and Mr

Vittorio

CPS 32 fault tolerant machines built by Stratus of the U.S. in which Olivetti has formelined crates the exact foam-lined crates, the exact shape of the M24, the machines are lined up, some with the Olivetti logo, the rest in the distinctive livery of AT & T, a 10.1 per cent interest, PDP 11s from Digital Equipment, Olivetti's own M40 and M60 minis—sit at strategic points, their the U.S. telecommunications screens reflecting the 25 per cent of the Olivetti equity and which is working with movement of components and machines through the Olivetti towards a common plant.

Olivetti towards a common strategy in workstations.

It is hard to over-estimate the

Most surrealistic of all, an array of M24s sits under test at the end of the production line all running the Microsoft "Flight Simulator" program "Flight Simulator" program which is a test both of the power of the machine and of its compatibility with the acknowledged market leader, the IBM PC. It would give an

of net financial indebtedness to shareholders' equity was 16.9. By 1983, a combination of good housekeeping and a power-ful product strategy resulted in profits of L295.3bn and an in-debtedness ratio of only 0.6.

Spectacularly though the turnaround was, it was not enough to guarantee Oliverti its place in world markets where, through its alliance with AT & T, it is determined become the credible European alternative to IBM.
"We have to remain number

one in Europe and also become a major world leader in the field. In our business, you can importance to Olivetti of its alliance with AT & T. The way not stay in the middle," says Mr De Benedetti. Specifically, the alliance pro- world following vides a common approach for and divestiture. the two companies to the design

and development of new work-

It provides for Olivetti to mar-ket AT & T's 8B microcomputer vice-president,

Inevitably, there have been some strains in the matching of two such different companies Olivetti small, entrepreneurial. well-focused on the office world where all its experience is fixed. AT & T, large, slow-moving and still coming to terms with its new position in the business

We have to remain number one in Europe and also become a major world leader in the field ... in our business you cannot stay in the middle.'

-Carlo de Benedetti

In the past few weeks Olivetti has announced that it is well down the road in talks with Xerox Corporation of the U.S. group operations, turned ket AT & T's 8B microcomputer which would lead to Xerox discovered fortunes around is systems which use the Unix tributing the M24 in the U.S.—

operating system throughout with AT & T's blessing. Xerox, which use the Unix tributing the M24 in the U.S.—

operating system throughout with AT & T's blessing. Xerox, which despite having created wirtually all the concepts which

world following deregulation

"electronic office" has not been very successful in personal computers. It stopped manufactur-ing its \$20-11 and 16/8 three months ago.

The Olivetti machine is expected to take their place.

If the deal goes through,
Olivetti will have two major
distribution channels in the U.S. dealer network in Europe.

It should not be forgotten, however, that although AT & T has agreed to take some \$260m of Olivetti small systems in the next two years, it has agreed at the same time to take an even larger value of personal computers from Convergent Technologies, a rapidly growing U.S. company selling an well-favoured

Olivetti's strategy for the per-sonal computer market, according to Mr Vittorio Levi, turns around the office workstation, at present realised in the shape of the personal computer.

Olivetti believes that the supply of these workstations will be in the hands of a few

the companies with the corporate een strengths to "supply worldwide, om- manufacture the immense volumes required and with strong marketing and distribu-

> The strategy is based on: A strong global marketing position — about two-thirds of Olivetti's business comes from Europe; it wants subsidiaries in every industrialised nation in the West. It claims to have supthe personal computers sold in Western Europe in 1984.
>
> • A broad base of technological and industrial innovation

> through minority shareholdings in a string of companies throughout the world — the list includes Syntrex, IPL, Stratus, Digital Research and now Acorn in the UK. Olivetti is brutally realistic about these investents: "If it does not work, we disinvest," says Mr Levi.

• A broad product range for office automation where all the individual systems can be con-nected together. Olivetti was not particularly fast into sonal computers or word pro-cessors but it was a pioneer of

stood that progress towards the office of the future would be slow and it provided products that matched the pace that best suited its customers. Its latest office product. launched only two weeks ago, is a family of video typewriters.

electronic typewriters with While the giant IBM

in Europe, the ambitious Italian company certainly has IBM's watchful respect.

hardly fears Olivetti

much of the capability of word processors but a less frightening eap for the user. Commitment to the education market. Elserino Piol says of the Acorn deal: "Acorn's

market forms the company's principal role in alliance." • A strong presence in tele-

high profile in the education

Flexible manufacturing facilities and a stable financial base. According to market researchers Frost and Sullivan, Olivetti had an installed base of 55,000 small business computers, 80,000 word processors, 60,000 personal computers and 15,000 scientific computers in 16,000 scientific computers in Europe by May, 1984.

Frost and Sullivan notes: "It planned (very ambitiously) to manufacture 350,000 M21s and M24s during the ensuing 12 months, 250,000 of these going to AT & T and the balance to Olivett's own European mar-

These are levels which are almost certainly highly optimistic." Olivetti's workforce in Scar-

mango, preparing the dactory systems which will allow it to turn out 75 personal compu every hour, would not agree. Whether Olivetti can achieve its ambition to become the European alternative to IBM is for the future to decide, but it is starting from a position of strength. And if it hardly fears Olivetti, De Benedetti's team the certainly has IBM's watchful

Major upheaval under way

CONTINUED FROM PAGE 1

the company's balances world account to another and pay bills. Using a personal computer as Using a personal computer as the terminal makes it possible for the treasurer to receive reports automatically from the company's various branches and to manipulate the information using, for example, Lotus 1-2-3 or a similar program. Chase Manhattan, Citibank and Bank of America are among the leaders in using personal com-puters in this way.

• Computer aided design: To design engineering com-ponents electronically used to take the speed of a sizeable minicomputer because of the computing power needed to create an image on the screen and carry out the necessary cal-culations so that the image could be manipulated in vari-

ous ways. Now companies such as Outodesk in California have developed software costing only £1,000-£2,000 which runs on virtually any personal computer and which brings "personal-ised" computer-aided design to a whole new range of profesa whose networks and protects, pro-perty developers and graphics designers.

Networking: The most advanced personal computers use very powerful microprocessor chips capable of handling 16 or more bits at a time. This new power can be harnessed by sophisticated microcomputer operating sys-tems such as Unix or Concurrent DOS-software programe

which order the internal workings of the computer-to enable the machine to carry out several tasks at once and to be linked into intercommunicating networks capable of supporting the work of an office group or department.

It is the versatility and low cost of the personal computer which is responsible for the paradox that while researchers, such as Frost and Sullivan, are predicting that in Europe alone, total personal computer shipment values will increase 60 per cent annually to \$8.1bn during 1989 and to more than \$20.5bn over the five-year period to 1989, the casualty rate among new suppliers is rising significantly and some established manufacturers are experiencing a marked decline in sales. Apple Computer, for example, which has not had the success

expected with its novel "Macintosh" personal machine, recently closed its factories for a week. It could show little or no profit for this quarter.

no profit for this quarter.

Digital Equipment, which created and still leads the world in minicomputers, has recently discontinued its "Rainbow" series of personal machines and is planning to come back with IBM compatible models Xerox Corporation has ceased

computer in the U.S.
Olivetti has already a reciprocal personal computer market-ing arrangement with AT&T which will not be affected by a

deal with Xerox.

The hard fact is that although the market for workstations worldwide (for which read per-

large as 130m in the next five years, they will be supplied by a very small number of extremely large companies, able to manufacture huge volumes at very low cost and distribute and market them effectively.

Even IBM which, over the

years, has proved its ability to become the lowest cost producer of everything from high-speed memories to professional per-sonal computers, pulled out of the home computer market because it could not generate sufficient profits there.

But IBM is one of the few companies whose future is personal workstations seems assured. Only a year ago, Apple would have been in this category but unless it can convince the business community that it is selling a genuinely professional machine even its future is in question.

It is early days to assess the contribution of the combined forces of AT & T and Olivetti (with perhaps Xerox) and the Japanese, despite their manufacturing skills, remain an unknown quality (but never forget motorcycles cars of forget motorcycles, cars or videocassette recorders).

Xerox Corporation has ceased manufacturing its 820-11 and 16/8 machines and is deep in discussions with Olivetti about marketing its well-regarded M24 Computer in the U.S. Olivetti has already a recipro-

personal computer revolution will be the most critical and

only the very strong or very talented will survive.

*Frost and Sullivan; Corporate Personal Computers; the market in Europe, 2 vols. Jan 19.

 $w_{1\uparrow}$

DOF.



Texas Instruments' professional computer (left) with the TI speech command system. By means of a microphone or headset, voice input is substituted for keyboard input, leaving the operator's hands free to carry out other tasks. Right: lBM's PC displaying the Prestel viewdata system



Still the largest market in Europe

UK demand

surges ahead

JASON CRISP

developing products or get

ket which is inevitably sus-picious of small, unproven com-

One of the greatest problems in the UK sector lies in the dis-tribution of personal computers. There are more than 2,500 com-

puter dealers in the UK, but many are small, unable to pro-

vide proper customer support

small a turnover to be viable in the long term. There is already a high casualty list as such

mpanies go into receivership.

According to a study by Rom-

tec, specialist marketing consul-tants, the top 250 dealers (rep-

resenting only about 10 per cent of the total) account for 50 per

cent of sales of micros to the end-user. It shows how small a

market has to be shared between the remaining 90 per cent of

Inevitably, much attention in

the UK personal computer industry is focussed on ACT.

The company was a moderately successful and well-established

computer bureau which started importing the Sirius computer from Victor Technologies in 1981. It was the first 16-bit com-

puter to become available in the UK and had 18 months in which

to get established before IBM launched the PC in Europe. ACT

had a runaway success with the

capitalised and have too

BRITAIN'S ENTHUSIASM for personal computers shows no sign of abating. The UK market for personal that Victor was not well run and computers is still significantly larger than any other products. (Victor later filed for country in Europe and is only beaten by the U.S.

The British market is dominated by Applied

Computer Techniques and IBM which have, broadly speaking, equal shares. A long way behind are companies like Hewlett-Packard, Digital Equipment, Olivetti and Apple with relatively small shares of the market.

While ACT is the only strong British presence in the market there are a number of small entrepreneurial companies which are struggling — with varying degrees of success -for a toe-hold in this booming market. These include Re-search Machines, Advance, Jarogate and Torch.

 $(\gamma_{i})_{i \in \mathcal{N}} (\gamma_{i})_{i \in \mathcal{N}}$

Section Street

TO ASSESS FOR

There are a number of reasons why the market has been so strong in Britain, despite its comparatively weak national economy. These factors

• Britain is the "first stop" for U.S. manufacturers because of the common language. This is particularly important in the is particularly important in the computer sector because soft-ware for the U.S. market is easily adapted for Britain. (ACT itself started by importing the Sirius computer from Victor Technologies of California.)

● The UK also has very strong indigenous skills in computer technology, even if these have not always been successfully exploited commercially. This ex-pertise has resulted in a num-ber of small companies being set up which have developed their own personal computers. A more important factor is Britain's very strong software industry producing its own programs which, in turn, have stimulated the market.

 Although the UK has a relatively high number of large mainframe computers, it has much fewer small business computers than West Germany.

There are other intangible reasons which may have contributed to the enthusiasm British business has shown for personal computers. These include the country's apparent interest in new technologies in the domestic market, particularly home computers. Another reason, according to some analysts, is the strong position of a domes-

the U.S. bankruptcy code.) In less than a year ACT de-veloped and began to manufacveloped and began to manufac-ture the Apricot, which is now its main product line. ACT's sales have continued to rise dramatically. In the year to March 1983 turnover was just over £22m which is expected to rise to nearly £100m in the financial year just ended. Last month ACT told City analysts that sales in the current year

that sales in the current year would be over £160m. ACT has had success in a number of overseas markets in-cluding the Middle East and strong, a number of British companies—including hardware and software companies and dis-tributors—have had problems. A number have found difficulty Australia. It has also recently embarked on a major—but delayed—push into France and West Germany where it hopes for a turnover of £20m this

not developing the right new products. (Victor later filed for

rotection under chapter 11 of

ting them accepted by the mar year. Its biggest gamble is a move into the U.S. where it has set up a new company, Apricot Inc. with \$20m, partially financed by institutions and existing shareholders. ACT has a 20 per cent stake in Apricot Inc with an option to take a controlling an option to take a controlling interest. Although ACT says it only wants to capture 1 per cent of the U.S. market within three years, it would be worth \$150m a year.

Apricot is, however, running

behind schedule because it under-estimated the time taken to train dealers. Even so, analysts have not been too concerned to date. After only very modest success in the personal computer field, ICL, the only indigenous

Re-organised

The OPD is a combined personal computer and advanced telephone which is claimed to be

UK market values British market shipments fore-east for personal computers in the corporate environment, its values by product type. These values are expressed in \$m at constant end-1984 levels, on an "if-sold" basis, and rounded to

the nearest \$10,000. Product type 1985 1986 STAND ALONE Hardware 132.72 142.50 Software 64.78 106.88

Total value ... 197.50 249.38 VETWORKED Hardware ... 26.19 79.20 Software 8.91 42.30 Software Total value ... 35.10 121.50 ORTABLE Hardware ... 36.88 66.00 Software 22.42 52.50 Total value ... 59.30 118.50 LL TYPES Hardware ... 195.79 287.70

Source: Frost and Sullivan. Britain is the 'first stop' for leading U.S.

Grand totals... 291.90 489.38

96.11 201,68

computer manufacturers. The UK also has very strong indigenous skills in computer technology and software production.

ness personal computers which is unlikely to appear in Britain this year is the ABC range from Acorn computers. Acorn, which make the BBC Micro specialises in the home and education market, had planned to launch a range of eight powerful business com-puters at the beginning of the year. However, the company found itself in deep financial difficulties at the beginning of this year and was rescued by Olivetti the Italian office equip-ment and data processing

As part of a major reorgani-British mainframe company, looks in a stronger try to market and unsurrous position with its recently the ABC range itself. It will, launched One Per Desk (OPD). however, sell them to other companies on an original equipmanufacturer (OEM)

The problems of marketing and distributing personal computers in competition with wellvery easily used by managers established strong companies with no computer experience. like IBM and ACT may well the OPD was developed in conpression with bear a major hurdle for the original transfer with the inction with home computer those small entrepreneurial group, Sinclair Research, and the software company, Psion. hope to find a niche in the ICL has won significant orders from Telecom Australia and acknowledging that technical British Telecom for the terminal and is hopsing for sales of trains to sale larger and are hope to find a niche in the of the market. More than half market. Increasingly they are of IBM's personal computer acknowledging that technical sales are now estimated to be

The competition intensifies

TEA LEAVES and a crystal ball are probably the best means of predicting the 1985 performance of the U.S. personal computer market. Market data and the conventional indicators of sales and profits have become largely irrelevant in the current state of gross uncertainty that surrounds the personal computer business.

IBM has stated simply that "the market remains strong through the first quarter." Apple Computer, on the other hand, says that the market is "fragile and highly competitive."

in U.S. market

LOUISE KEHOE

Despite the claims of Mr

Forrester Research of Cam-

live up to the expectations—and plans—of many U.S. manufac-

IBM, for example, plans to increase its personal computer

sales by 30 per cent this year, no matter what the market does.

That means winning market share away from competitors.

number of PC vendors become

1986's trivial pursuit questions," quips George F. Colony, presi-dent of Forrester, "Rugged

The worldwide market

Systems between \$1,000 and \$6

three major U.S. market research groups.

Systems under \$1,000:

Total

Portable

Tetal

Apple IIE MacIntosh

Personal computer market percentages worldwide by price class and product

1994

127.7

21.4

Worldwide shipments in thousands of units, 1984; data from

Future

47

281

132

1989

27.6

11.6 2.0

14.8

" 1985 will be the year when a

for the industry.

Surveys conducted by Info-corp, the Cupertino, California market research company, indicate a dramatic decline in purchases of high-end personal computers, starting in June of last year.

In September, 1984, unit sales of high-end personal computers through retail dealers were at 50 per cent of the growth trend line that has been maintained for the prost to the second seco for the past two years.

Sales improved over Christ-mas, but much of the added retail sales volume came in the high-end of the home computer sector: Since Christmas, IBM's sales have dipped about 15 per cent, while sales of Apple's Macintosh are down by 45 per

The slowing growth rate of the industry has been attributed to several factors. General economic trends show a slowdown in capital spending, which would impact the personal comwould impact the personal com-puter industry as much as any other business equipment supplier. Seasonal fluctuations in the market, while most dramatically seen in the con-sumer end of the market, are also applicable to business sales. Another factor is the increas-ing proportion of business personal computers sold direct by manufacturers. These sales,

portion of IBM's sales, do not show up in the retail surveys. "The research firms are surveying the wrong people" maintains David Norman, president of Businessland, a major retail chain. The business market is very

strong. It's the home computer market that's in the pits. Corporate America has a blank cheque for equipment to increase productivity." Changes in the distribution channels for personal computers have certainly added to the confusion surrounding the market. IBM's market share, for example, is variously estimated at between 25 and 60 per cent sales are now estimated to be controlled by the company either through its own com-puter stores or through direct

Corporation has discontinued its "Rainbow" series of personal computers, although the com-

Data General has conceded that sales of its Data General/ Pressures mount One portable computer have been disappointing. The com-pany has redesigned its portable display to meet customer

complaints.

Xerox is another victim of the personal computer market.

Despite having created much of year.

The statement of the personal computer was a second of the personal computer with the statement of the personal computer with th Despite the claums of far.

Norman and a small but growing group of disbelievers,
market researchers continue to
project a slowing growth rate the technology that is today used in Apple Computer's Macintosh, Xerox has been unable to capitalise upon its expertise. The company has bridge Massachusetts expects withdrawn its own personal 5-10 per cent growth this year, compared to 78 per cent in 1984. That it is not enough to computers although it is expected to offer machines manufactured by a third party in the near future. Apple Computer, the second

largest U.S. personal computer company, is not immune to IBM's moves either, with its Apple II sales significantly weakened over the Christmas period by IBM's PC Jr, Apple faces a bleak first quarter of 1985. The company is shutting its production plants down for the production of the production week as inventory mounts

Apple's Macintosh was "left

1984-89

Infocorp

880 60

440 240

7.7

market conditions that prevailed in 1984 will magnify to become a firestorm in 1985. A number of former players will burn in the aftermath."

out in the cold " by competing IBM products at Christmas, according to Apple chairman, Steve Jobs. The company has seen only a "sight improve-

Several are already feeling ment in sales since then, the heat. Digital Equipment Now, just as the compan Now, just as the company is about to begin its major push into the business market it has been hit with the bad news that pany promises to make a come—"Jazz," a Lotus development back in the personal computer integrated program for the market with an IBM-compatible Macintosh computer, will be machine.

The problems of the personal computer-makers have spread to impact their suppliers and the retailers who bring their products to the public.

Many independent computer retailers are holding on for dear life, hoping that they will still be in business by the end of the

The suppliers to the personal computer industry — chipmakers, disk drive manufacturers and floppy disk suppliers have all been hit hard by the cold realities of the personal computer market which have not lived up to the inflated expectations of a year ago.

The semiconductor industry

blames personal computer makers for its current severe downturn which was largely caused by over-heated demand in 1983-84, they believe.

Uncertainty

Disk drive manufacturers have suffered cancelled orders and uncertain demand from their major customers while the floppy disk industry appears to be going through a period of consolidation with major acquisitions including the recent takeover of Dysan by Xidex and the proposed pur-chase of Verbatim by Eastman Kodak.

Despite the clouds that now Despite the clouds that now seem to be hanging over the U.S. personal computer market, there will be some sunny days ahead in 1985. New products from IBM which are expected to include "PC-2," a replacement for the four-yeara portable personal computer could boost sales. Before introducing the new

models, IBM is expected to reduce the retail price of its current products. IBM com-patible manufacturers are expected to scurry to match the PC-2 and IBM's PC-AT, creating new interest in the market. Apple does not plan any new computers this year, but the company is expected to move to match IBM's new prices and

will fight aggressively for a share in the office market.

the producer, ACT. Although the market may be facture its own personal com-NOWN ORDER FOR PCs DIDN'T GO TO ANY OL CHARLIE

The order, from the American Defence Department, went to Zenith Data Systems.

Compare the Zenith PC with the IBM PC, and you'll notice one thing immediately. The price.

The Zenith PC comes readyto-run at a few hundred pounds less.

Yet does everything the

other one does. And more.

Zenith is the number one PC-compatible supplier in the world. A 1.5 billion dollar electronics giant with more than 10 years' experience in this highly competitive field.

Remember. The world's biggest known order for PCs didn't go to any old Charlie.

Neither should you.



Zenith Data Systems Ltd, St Johns Court, Easton Street, High Wycombe, Bucks HP11 1JX. Tel (0494) 448781. Telex: 43421.

Sales should rise rapidly this year

FRANCE'S professional personal computer market is developing into a battle ground in which French and international data processing groups are exchanging competitive swipes with increasing ferocity.

The country still lags a long way behind both the U.S. and the UK in terms of implantation of micro computers for home and business use. But, partly reflecting France's late entry on to the computer scene, sales of machines for business purposes grew by well over 50 per cent last year.

Expansion

in France

DAVID MARSH

which look likely to gain the bulk of the orders. And, more

and narrow the country's gap compared with other leading

year from the market research

or the professional type) against 11 per cent in the UK

Small businesses are becom-

ing increasingly interested in

information technology, with the proportion of companies of

less than 200 employees wired

But again, France suffers in

with a red report

comparison with other Euro-

earlier this year emphasising that the use of micro-electronics

in small businesses was well below the levels in Britain and

Predictions

pean countries, v Government-sponsored

According to a survey last

Western nations.

and U.S.

Market analysts predict that sales will continue to advance rapidly this year, despite a relative slowdown in the first months of 1985.

The fight for supremacy is very much an all-American struggle between IBM and Apple—but is strongly coloured by both companies' efforts (highly successful in the case of IBM) to identify themselves and their products as closely as possible with the French

In third place, but coming up strongly with the aid of still - continuing Government financial support and a more efficient product and marketing strategy, is the nationalised computer group, Bull. The company last year broke with 20 years of efforts to build up a fully independent French computer industry by unveiling new micro-computer, the Micral 30, which is compatible

with IBM equipment. In the background is a clutch of other French electronics groups with activities both in the business computer range and in less sophisticated equipand in less sophisticated equip-ment for domestic and educa-tional use,

The profession is currently

The profession is currently in the profession in

in a flurry over the impact of the plan, unveiled at the end of January by M Laurent Fablus, the Prime Minister, to install 120,000 computers in schools and other education establishments by the autumn. This is not the first school computer project. It supersedes a plan already announced in autumn 1983 to tool up schools

Market comparisons

Market shipments forecast for personal computers in the corporate environment, value by product type. These values are expressed in \$m at constant end-1984 levels, on an " if sold " basis, and rounded to the nearest \$10,000.

		PKANC	<u> </u>	-WES	T GERB	AANY-
Product type	1984	1985	1986	1984	1985	1986
STAND ALONE						
Hardware	86.26	112.35	127.30	96.26	124,95	138.70
Software	27.83	54.84	95.48	\$1.05	60.99	104.03
Tetal value	114.09	167.19	222.78	127.31	185.94	242.73
NETWORKED						
Hardware	9.10	20.61	70,40	9.63	23.04	79.20
Software	1.87	7.01	37.60	1.98	7.84	42.30
Total value	10.97	27.62	108.00	11.61	30.88	121.50
PORTABLE						
Hardware ,	13.75	31.25	57.75	16.50	33.75	66.00
Software	5.75	19.00	45.94	6.90	20.52	52.50
Total value	19.50	50.25	103.69	23.40	54.27	118.50
ALL TYPES						
Hardware	109.11		255,45	122,39	181.74	283.90
Software	35.45	80.85	179.02	39.93	89.35	198.83
Grand totals	144.56	245.06	434.47	162.32	271.09	482.78

Source: Frost and Sullivan, 1985.

French sales of business microcomputers priced at more than \$1,000 grew to 140,000 last year from 80,000 in 1983. It is from 80,000 in 1983. It is predicting sales of 200,000 this

Figures from IDC—although on differing definitions—are appreciably lower. But there is appreciably lower. But there is no denying that the overall French computer market last year grew more strongly than in most other European countries apart from Spain. The phenomenon has helped Bull make some relatively encouraging pingroces in its long generally, the aim of course is to strengthen the hold of "computer culture" in France couraging pirogress in its long haul finally to make profits after years of heavy losses—a process which the company now believes will lead to break-even company International Data Consultants, only 1.5 per cent of French households are equipped with a micro-com-puter (of either the domestic this year after a reduced deficit of FFr 489m in 1984.

Intelligent Electronics believes Intelligent Electronics believes that Apple headed the business computer league table last year with 50,000 units sold in France—ahead of IBM with 38,000. France is the only major European market where IBM's PC has not yet staked up a commercial lead ever Apple—although the PC looks almost although the PC looks almost certain to overhaul its American rival in France this year.

Apple itself puts its French sales last year at 70,000 units making a turnover of FFr 940m —an astonishing increase from 30,000 units (FFr 375m sales) in 1983 which well illustrates the pent-up demand in the

M Jean-Louis Gassée, the chairman of Apple's French subsidiary, is predicting further sales growth of 50 per cent this year and denies claims from the retail trade that the Macintosh's sales performance in France has

June, Macintosh sales in France totalled 14,800 units — making up 31 per cent of total sales in value terms in 1984, he says. Apple has made contact in recent months with Bull and the also nationalised Compagnie

Generale d'Electricite group over the possibility of licensing the Macintosh technology to allow production in France. This would have allowed the U.S. company to profit from M Fabius's schools computer pro-

Sinclair Research, the British company which is the leader in France's domestic computer market and is increasingly crossing the line into the professional sector, has also been lobbying hard for inclusion in the programme. The company has been in contact with a number of French electronics groups — including CIT Alcatel and another state-owned telephone group CGCT — about subcontracting work in order to manufacture its QL model

in France.
The latest Government indications are that the schools plan, however, will exclude foreign companies at least from the initial batch of orders. So Apple and Sinclair — to say nothing of IBM — look likely to continue selling their equipment to schools and colleges via "back-door" rather than official routes (for instance, via parent teachers associations or liscounting

This method, according Apple, enabled it to sell 20,000 models to educational establishand universities with 100,000 West Germany.

Somputers by 1988.

The ambitious new scheme Intelligent Electronics, the sales performance in France has will give a boost to the fortunes Paris-based electronics market fallen below expectations. In of the domestic companies—

The ambitious new scheme Intelligent Electronics, the sales performance in France has pany's absence from the authorised list of suppliers for the seven months starting last schools.

schools).

The battle hots up

HERR WOLFRAM NADEBUSCH, sent in by Volkswagen to restore its Triumph-Adler subsidiary to full health, is embarking on a new drive in the professional personal of pressing ahead on the personal of pressing ahead computer market as a key part of his strategy.

Spurred along by the new chief executive, the West German office equipment and electronics company is about to launch new personal computers on which it is setting high hopes. At the same time it is building up a network of distribution and information centres in major cities to improve its marketing prospects in computers and computer systems.

The West

German market

the same story, he told a recent conference. Among the 30,000

lawyers, the use of computers is somewhat greater but still relatively slight at 3 per cent.

2m work places, ranging from tiny offices and factories to large

concerns. According to the Munich-based Infratest com-

munications research organisa-tion, the personal computer had

found its way into only about 85,000 of them at the beginning

grow, even though the profes-

sional market has been likened to a "Sleeping Beauty" wait-ing to be wakened by a prince's

developments and the dazzling array of choices. Suppliers, it is

often said, expect too much of purchasers. There are the familiar problems such as com-

patibility and complex instruc-

a niche of the personal com-puter market, West German

In their efforts to carve out

Germany's natural

West Germany has more than

to about 85,000 in 1989.

Triumph-Adler's latest moves, which will have an important bearing on the future of the company, are being viewed with great interest by other groups in the West German personal

With IBM and Apple dominating the business segment of this market in West Germany. Triumph-Adler is among the large number of companies, large number of compensation, local and foreign, vying for a respectable share in a growing 1983 to about 115,000 in 1989.

Theoretically, the professional respectable share in a growing 1983 to about 115,000 in 1989.

respectable share in a growing but deadly competitive business.

Particularly with the growing market still has plenty of potential. After all, only 1 per cent West Germany's 60,000 computer systems, home-grown companies such as Siemens, Nixdorf, Kienzle, Triumph-Adler and Olympia are actively pursuing wide-ranging opera-

tions.

Being in many ways a conservative country, West Germany has not opened its heart or its wallet to the personal computer quite as fervently as the U.S. or Britain — so far, at any rate. The spread of per-sonal computers for home use and for business use is by no means as great as in those

But interest seems to be growing, particularly in the comme cial area, and market prospects for personal computers, as well as computer systems, are generally viewed optimistically. Since then, however, interest has been further stimulated and sales have continued to

Strength

According to a survey reported recently by "Chip" magazine, the West German personal computer market grew strongly last year, even though less robustly, than some experts had expected. Sales reached about 500,000 units, consisting of some 400,000 "home" computers and more than 100,000 computers bought more specifically for business purpo

'Chip" estimated that West Germans were using a total of about 800,000 home computers and more than 360,000 business computers at the end of last

The magazine, which carries out a monthly "best-seller" survey in co-operation with Roland Berger, the Munich-based management consultants. and market researchers, says that IBM/PC and Apple He have been "slugging it out" for market leadership in the busi-ness segment of the market. First one, then the other has

monthly race. Diebold, the Frankfurt-based information technology specia-lists and management consultants, have forecast a slowing down in the rapid growth of the home computer market in West Germany, but see a steadily ris-ing market for the higherpriced professional systems.

A Diebold analysis suggests, for instance, that in one higher priced segment of the market (computers priced between DM 5,000 and DM 10,000) sales

could grow from 44,000 in 1983

or pressing anced on sonal computer front. The merging of data process-ing and communications tech-nologies has also presented companies with the challenge of widening the horizons of their operations or of filling in gaps in their computer systems

Triumph-Adler, which has gained about 5 per cent of the personal computer market in West Germany, is facing a particular test, with Volkswagen anxious to eliminate the burden of losses at its subsidiary.
Its typewriter division has already been streamlined and

modernised, and Herr Nade-busch, who previously headed VW's difficult operations in Nigeria, is hoping that the com-In a still higher segment (from DM 10,000 to DM 25,000). puter division, with its revamped Nuremberg production centre, will reach the point of profitability next year. VW has already decided to hive off Triumph-Adler's lossof West Germany's 60,000 general practitioner doctors making Pertec office computer operations in the U.S. and to bring them under the successful have a personal computer in use. according to Dr Kurt Eckern-kamp, the magazine publisher. Among the 60,000 dentists, it's wagen of America

umbrella. Triumph-Adler is hoping to achieve higher volume sales of personal computers through tackling both product develop-ment and marketing. It envisages that the distribution and information centres being set up in major citles will provide guidance both to its traditional specialist dealers and to large

New models

With its Alphatronic series. Triumph-Adler notched up sales of 26,000 personal computers last year, compared with 15,000 in 1983. Its new models, the PC16 and the upper bracket P60, are being produced in West Germany in readiness for launching on the local market, after the Hanover Fair in April. caution has been reinforced to some extent by all the uncer-tainties surrounding computer The P50 model, recently intro-duced in Germany, will be launched shortly on the UK market.

As part of its efforts to strengthen its marketing, Triumph-Adler has already begun setting up its distribution and information centres, initially in Hamburg, Hanover and Nuremberg, It envisages having nine in major West German cities by the end of this companies have faced intense competition. But, in fact,

year.
The company is setting up

to another.

Triumph-Adler decided to move in this direction after concluding that existing districoncluding that existing distri-bution and marketing arrange-ments were not wholly satisfac-tory, for example in providing the guidance and advice which is often necessary to win com-plex computer system business. Herr Nadebusch is hoping that the turnaround will come not only from the new personal computers and strongthened distribution, but also from the

new multifunctional System M office communications system now being introduced. Co-operation Beyond these developments, Herr Nadebusch has also made clear that he is seeking to establish co-operation between Triumph-Adler and a communi

cations specialist in view of the merging of the related techmerging of the related technologies.

The forthcoming Hanover
Fair is traditionally an occasion
for companies to present new
developments, and Nixdorf is
again among those which have
already given an indication of

already given an indication of what can be expected.

Nixdorf is introducing an IBM PC/XT compatible personal computer. designated as 8810/25, which has been developed by Matsushita of Japan to the Paderborn-based company's specifications.

Nixdorf says it is responding here to the increasing demand from its clientele for IBM-compatible PCs as part of office computer systems.

computer systems.

Another Nixdorf development to be presented at Hanover is the System-PC 8810/65 in the

upper performance bracket, Now, Telenorma (formerly Telefonbau und Normalzeit) has indicated a new emphasis in its strategy as a result of the merging of communications and computer technologies. On top of its traditional strength in communications, it is increasing its involvement in text and data processing. It will offer a microcomputer developed by Convergent Technologies of the U.S. as an

integral part of office communications systems. The move, however, is seen less as a step into the highly competitive market for standalone personal computers than as a means of maximising use

of text and data communications

P .-

į,

Project Projec

European market value

and rounded to the nearest \$10,000

Total value (\$m)

A summary of country shipments forecast for personal computers in the corporate market sector, 1984 to 1989, by value. The following values are expressed in \$m at constant end 1984 levels, on an "if sold " basis

been taking the lead in the Country 1989 1985-89 37.43 23.87 63,22 41.61 248.16 627.20 16.82 70.90 102.28 148.22 2,001.49 56.57 17.74 31.69 49,31 164.70 41.43 96.52 160.63 92.45 238,34 64,47 160,96 336.92 90.08 247.64 Norway 236.63 139.21 881.15 31.13 291.90 197.12 791.04 141.35 192.19 489.38 1,177.62 81.07 202.15 297.19

Should your business micro software offer a marriage of convenience or a Perfect match?

Most of us by now appreciate the ways in which a personal computer can help business. Word processing, forecasting and calculation, data storage and retrieval, and interactive data communications all become simpler and more efficient.

But computers don't think for themselves. No matter what sort of micro you buy it will only do exactly what you tell it to do. So you only realise the full benefits of computing power if you talk to your computer in the right way. It is the software you choose that matches your

computer to the tasks and dictates what your computer will, or will not perform. Until now the choice of business microcomputer software has been a compromise.

A marriage of convenience. Either programs were simplistic and only performed basic tasks, or there were complicated, all encompassing packages that gave you

everything you needed and more. Often much more, at a price you didn't want to pay. Now THORN EMI Computer Software, Europe's largest software publisher, can give you

the Perfect Match with Perfect Software II. Perfect II is a fully integrated suite of software with programs giving enough power to cover all your business requirements, but offering the

flexibility of single units. So starting with the most appropriate program for your major requirement you can develop a relationship with Perfect II, and then build up your software library in a series of steps introducing further programs only when

is fully compatible with the others and the three

Information on the Perfect Software II range

Please send me



French, Swedish and German programs will soon be available.

Perfect Writer II is a comprehensive, yet easy to learn, word processing program designed for both novice and expert alike. It will edit, search, layout, write reports and support most popular printers. And to make sure you're always word perfect there is a Perfect Thesaurus and Perfect Speller facility.

Perfect Calc II is a powerful and sophisticated calculation and forecasting program. It will run up to 15 spreadsheets at the same time, with split screen operation and regional calculation facilities. It comes complete with a variety of ready to use model spreadsheets.

Perfect Filer II is a data management program. It can produce inventories, personalised mailings, listings, customer files, records and much more, and you don't need to master a programming language or a complicated command structure. The final program in the Perfect II family is

Perfect Link, a data communications program that can link your microcomputer to on-line information services and other computers. All Perfect II programs come complete with a full instruction manual and Help Screens.

explaining how to use the Pop-Up menus, and other standard features designed to create the Perfect Match between you, your computer, and the job in hand.

And with each program costing only £149.00 you can afford to make the most of your business microcomputer by making the Perfect match.

To find out more clip the coupon or ring 0252 543333 and ask Perfect Software Sales to tell you the name of your nearest

Perfect II dealer.

Machine Type Address of my nearest stockist PERFECT COMPATIBILITY Perfect Soltware II programs are all fully interactive and will run on the following machines: IBM Personal Computer: IBM PC bits COMPAQ Plus. Televideo Personal Mini. Televideo Personal Computer: Televideo Portable Computer: Columbia MPC + other IBM closs lookalites.

MINIMUM SYSTEM REQUIREMENTS 1286 memory DOS L25, 2.0, or 2.1, Two Pipppy disk drives. Monochromo monitor. OPTICAS Colour mon

Period of major growth

Sales double in Italy ALAN FRIEDMAN

LAST YEAR was a period of major growth for the personal computers market in Italy. Sales of professional models more than doubled from around 38,500 units in 1983 to more than 90,000 last year.

In monetary terms, the per-sonal computer market in Italy was worth around L500bn (\$234m) in 1984. Market analysts expect sales in the curanalysis expect sales in the cur-rent year to at least equal those of last year, as the process of educating not just the biggest companies, but also smaller businesses, gets underway in earnest.

Three manufacturers account for around two-thirds of all sales in this sector in Italy, The most important, as in the rest of the world, is IBM, which last year claimed a 30 per cent share of Italian sales, thus outpacing Olivetti, Italy's leading data pro-cessing equipment maker.

According to figures prepared by the PGP market research organisation (and generally approved with by other analysts), Olivetti last year came second after IBM, with a 23 per cent share of sales. Apple Computers, which in 1983 had only 15 per cent of the market, was by the end of last year level-pegging with Olivetti, in terms of market share, The fact that IBM has, in the

past 12 months, replaced

volume from around 14,000 personal professional models in 1983 (when it had 35 per cent of the Italian market) to around 21,000 units last year, according to PGP estimates.

All manufacturers experienced significant growth in the Italian market. As Sig Giancarlo Capitani, market research director at PGP, explains: "until the middle of last year, even the biggest corporations were still experimenting with

were still experimenting with the office use of personal computers. But now, there has been a more practical and cultural acceptance of the role of the desk-top computer in Italy."

IBM's success in Italy is due in large part to its aggressive promotion and marketing programmes. The U.S. giant is also acknowledged to have excellent distribution channels, achieved. distribution channels, achieved, in part, through the acquisition of several key software houses. The American company has also been able to take advantage of a long-standing client list, par-ticularly in the main frame

Integration

Meanwhile, its professional computers models can be easily imegrated with extant mainframe systems of its own manufacture, a distinct advantage in selling. Olivetti, while achieving a

quantum leap in the number of models sold to the U.S. as a result of its alliance with American Telephone and Tele-graph (AT and T), had had one or two problems in the home market. The transition from Olivetti's flawed M-20 model to its superior M-24 has caused Olivetti as the market leader does not mean that Olivetti is hiccoughs in marketing. Like-slipping. It is, instead, an example of the redistribution of the market in favour of IBM. to ship a staggering 100,000 terms of unit sales, for work stations to the U.S. for distribution by AT and T led example. Olivetti has increased distribution by AT and T led fessional computers are still by any means.



to temporary delays in Italy. shortages and

Apple, meanwhile, has approached the Italian market with a different philosophy. Its strategy has been to tackle specific sectors and company services, thus scoring successes with hanks and companies in with banks and companies in the application of its Apple II and Macintosh models in foreign exchange divisions, budgetary control, word pro-cessing and spread sheets.

Apple's distribution channels Apple's distribution channels have tended to be computer shops and specialist agents, while Olivetti relies heavily on its own network of office equipment distributors and IBM favours software houses.

The balance of the Italian market, after these three manufacturers, consists of a number of famous names. According to a survey prepared by Sirmi (one of the leading market researchers), Commodore, Hewlett Packard, Digital, Texas Instruments, NCR, Sharp and Triumph Adler were the other Triumph Adler were the other leading companies accounting for much of the remaining onethird of the market not occupied by IBM, Olivetti and Apple.
In terms of application, pro-

being used mainly (67 per cent) in medium- and large-size com-panies. The education sector has been a particularly interest-ing market. Even if it last year accounted for only around seven per cent of total sales. Price-cuts

Source: Frost and Sullivan, 1985.

Doriano

766.74 1,229.66 2,104.96 3,607.40 5,503.60 8,193.73 20,630.35

Sig Doriano Guerrieri,
Apple's sales manager in Italy,
admits that Apple last year
slashed prices on personal
models being sold to schools
in Italy by as much as 40 per
cent. But it should be noted
that both IBM and Olivetti also
gave huge discounts to schools,
which are regarded by some
analysts in Italy as a traditional
"dumping ground" for manufacturers.

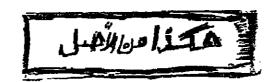
"dumping ground" for manufacturers.

Nonetheless, Apple does offer customers in Italy a more attractive price than IBM or Olivetti, largely because its initial product is more basic, and is designed with the idea of adding software and other accessories. Thus, an average IBM or Olivetti professional model might sell for L5m to L6m, while the basic Apple II would be available at an average price or L3.5m.

What does the future have to offer?

According to Assinform, the sector's association, 1985 should see continued growth in the Italian market. Of particular importance is the drive to reach smaller businesses and persuade them of the desira-bility of a professional personal computer.

It must be remembered when speaking of the Italian market, however, that even now the country remains some two or three years behind the pace of other major industrialised European countries. The initial stage of education may be over, but complete cultural accept-ance has not yet been achieved



ALTHOUGH JAPANESE companies are several years behind their Western counterparts, they are finally waking up to the myriad benefits of the office personal computer, and are resorting to a variety of tactics to force their generally reluc-tant managers to move with the

retailing.

At Marubeni Corporation, one of Japan's leading trading houses, officers of the Administration and Planning Section decided they must introduce computers from the top down. So last December they sent the company president and two dozen directors to a resort hotel for three 12-hour sessions of intensive computer instruction.

It seemed to work. The company claims little resistance to its programme to boost computer-usage from 200 personal computers at present to 1,500 machines over the next five years. Each department throughout Japan will have at least two personal computers, integrated with several communications systems, and the com-pany will arrange a series of seminars for the 8,000 em-

Last year Toshiba Corpora-tion moved to a new 40-storey headquarters, which it dubs the "office of the future." Some Y10bn worth of office automation equipment is installed there, including 300 computer terminals and a fibre-optical LAN.

Japanese market

MARTIN ROTH

In order to cut nown on the sea of papers which traditionally engulfs Japanese offices, senior management severely limited the number of filing cabinets. In addition, to enforce the use of the computers they decreed that no employee can store more than two metres of

"They check up on us," says Masaki Mikura of the Public Communications Office. "We don't know when they do it. They must come on Sundays. Every so often our department head gets a memo saying we have too many files."

But he admitted that papers still flood into the office, and that there is sometimes reluctance, especially among older employees, to take advantage of the computers and other

Indeed, even at Marubeni and Toshiba the computers reside in their own corners of the office. It is rare to find the Japanese company where senior executives keep a personal computer on their desk, or even near it.

near it.

Last year the Japan Information Processing Development Centre (Jipdec), a semi-governmental group, published a major study, "Personal Computer Market in Japan." It notes that "the most typical example of personal computer utilisation at the Japanese company is to have a number of machines alloted to each section for use by certain insection for use by certain in-dividuals only (usually female workers) in carrying out of specific tasks."

The report notes that Japa-nese businesses typically use

The introduction of personal computing is

management and inventory con-

are also surely behind in using computer communications, local area networks (LANs) and databases.

One oft-cited reason is that Japanese businessmen, unlike Western colleagues, are not experienced at using typewriters, and are thus uncomfortable with computer keyboards. Their worries are compounded by the problems of inputting kanji characters. They also say they prefer the "kinship" of doing business face-to-face, rather

than electronically. Indeed, if the professional personal computer is no longer a status symbol in the West it has yet to reach that stage in Japan. The irony is of course that Japan has ravidly become one of the world's big pro-ducers of personal computers. Japanese companies produced some 1.8m personal computers last year, the majority of them game and home models. In 1978 the figure was just 10,000, but rose to 760,070 in 1982 and

1.1m in 1983. The centre predicts a figure of 2.5m this year, 3.2m in 1986 and 3.8m in 1987. However, these rapidly rising figures mask a fierce shakeout taking place among domestic manufacturers, with one

In order to cut down on the their computers only for work casualty already, Sord Com-ferent manufacturers, Japanese ea of papers which tradition- such as sales and customer puter, Japan's only venture software is generally regarded computer business

In 1980, Sord introduced its No figures of the diffusion own simplified business soft-rate are available, but it is ware programme known as virtually certain that far fewer PIPS, which became an overpersonal computers are in the night success, and its computer Japanese office than in those in sales grew five times between 1980 and early 1984. At one time it held 20 per cent of Japan's personal computer market. But price competition grew intense as huge rivals such as IBM Japan and Fujitsu entered the fray, and market share and profits tumbled.

This February it was revealed that Toshiba will buy more than one-third of Sord's shares, and may eventually take a majority stake. The overwhelming leader in

the professional personal com-puter market in Japan is NEC, which is thought to have a share of 60-70 per cent. Fujitsu follows with around 15 per cent, while IBM may have about 10 per cent. NEC's successful strategies include a network of 10,000

electronics stores selling its products throughout Japan. There is also a chain of more than 200 specialised NEC micro-computer shops.

The company's new models are generally compatible with the older ones, and some 40 per cent of the software in Japan

is designed for NEC.

Lack of software, in fact, makes it difficult for some com-panies to compete, especially as there is usually no compatibility key sectors, such as the car and between the computers of dif-

as being harder to use than specialised software for use in that in the West, partly because their sectors, which they sell of difficulties in the language, with the computers. Market obbut also because of a general servers believe that while the failure to keep up with rapid company is most unlikely to dup-

developments in America.

Micro Focus claims to be the of its IBM PC in America, it first British company to sell could move into a strong second microcomputer software to the place behind NEC.
Japanese in 1982 in an initial Japanese compate contract worth £190,000 for a 79,000 personal contract. contract worth £190,000 for a 79,000 personal computers in Cobol compiler to support 1982, 256,000 a year later and Japanese Kanji characters. In 1983, Micro Focus earned more 1983, Micro Focus earned more than £2m and this is seen as a growing sector of the com-pany's worldwide trade. NEC will not quickly fall

from its supreme position, though at least one rival, IBM, is, in the words of an industry analyst, "playing tough," and is believed to be rapidly increasing sales.

New models

It introduced its locally-developed 5550 model 16-bit professional personal computer in March 1983 and followed this with two new models, in October last year and February this year. All models offer strong Japanese-language pro-

cessing capability.

IBM uses its own sales staff to market these machines to the business world, and it has also adopted an interesting strategy of encouraging a network of independent dealers with close ties to leading companies in

These dealers—now number-ing more than 100—create specialised software for use in

Japanese companies exported could rise to 571.000 this year, 759,000 in 1986 and over a million in 1987, according to Jipdec.

In January this year Apple announced a major shake-up of its Japanese operations, and in April it introduces a Japanese Macintosh with two Japanese-language word-processing pro-grammes, one aimed at the business market with 8,000

kanji characters.
"We offer an alternative here, just as we do in America," said Robert D. Cory, general manager of Apple Computer

The company hopes that the operating ease of the Macintosh may attract Japanese businessmen generally reluctant to use personal computers.

Nevertheless, many believe the future lies with those com-panies which can offer complete systems, and Japan's big electronics groups, such as Toshiba, Hitachi and Matsushita, are targeting this aspect of the propersonal computer Japanese manufacturers

Microcomputer market shi	computer market shipments by manufacturer, 1983 Unit							
	ship- ments '000	Percent of total	Retail Value U.S.\$*000	Percent of total				
Casio	45	3.7	81,000	4.1				
Fujitsu	60	4.9	80,000	4.0				
Hitachi	70	5.8	71,000	3.6				
Matsushita	90	7.4	295,000	14.8				
Mitsubishi	50	4.1	165,000	8.3				
NEC	390	32.1	455.370	22.8				
Oki	33	2.7	110.250	5.5				
Sanyo	45	3.7	112,500	5.6				
Seiko/Epson	Õ	0.0	0	0.0				
Sharp	290	23.9	326.250	16.3				
Sony	-ŏ	0.0	0	0.0				
Sord	35	2.9	122,500	6.1				
Toshiba		4.9	144,060	7.2				
Other	46	3.9	36.800	1.7				
Total	1,214	100.0	1,999,670	100.0				
	Source	: Creative	Strategies Inter	natici e'				

NEC's successful strategy includes a network of 10,000 consumer electronic stores selling its products throughout Japan. There is also a chain of more than 20 specialised NEC microcomputer centres across the country.

"At present, Japanese offices are islands of automation," said Richard Greer, senior representative in Japan of Baring Far East Securities. "But eventu-ally all these various bites—the personal computer, facsimile machine and so on-will be linked together, along with more elaborate filing systems and a private branch exchange. Local area networks will become common. Stand-alone word processors, which are still

much-used, will disappear.

The whole scene

become even more competitive. It will become necessary to offer a complete office system, not just to big offices but to small ones as well."

Some manufacturers are already strong in office systems, he says, but otherwise the firms which do well will be those with good distribution or with one good product in a system, such as Ricoh with its facsimile or Canon with its laser printer. Some of the smaller companies will knocked out of the market."

at a very early stage in the Soviet Union, but the Politburo is clearly giving the issue urgent attention. Big barriers

yet to be overcome

THIS SEPTEMBER the Soviet Union will start a major programme of installing personal computers in schools. Initially, special computer rooms will be organised, each with 15-20 computers per room in 200 secondary schools and in 300 training units.

Looking towards the end of the century, the plan is to have 70,000 such rooms. But the immediate problem is the Soviet Union that there are insufficient instructors trained to use personal computers and two Soviet computers—the Agat and the Timur—are not produced in sufficient numbers at present.

Initially, computers will have to be purchased from abroad. This will leave the Soviet Union with too few computers in age the use of computers. Many schools and factories, given the Soviet managers, as studies priority which the new technology is being given by the advantages of computers to authorities. It has been the subject of Politburo meetings in recent months and heavy investment is likely to be seen in the 1005.00 Fine Very Plan which is made more efficient there is 1986-90 Five-Year Plan which is

now being drawn up.

Nor are the barriers to the of personal computers solely material.

"It is the fact that the over-whelming majority of mathematics and physics teachers assigned to courses will, for all practical purposes, have to master it at the same time as their pupils." notes one Soviet

specialist in computers.

Change in the schools, the training of teachers and the development of manufacturing capability will all have to happen quite rapidly—which impen diffe rapidly—which in-plies a degree of reliance on foreign experience and tech-nology, probably under a joint manufacturing agreement.

Soviet specialists are aware of the extent of problems faced, They say that personal computers only became commonly available in the West after 1976 but this understates the extent to which the Soviet Union has followed because of the fallen behind because of the limited development of a manufacturing capacity for com-puters of any kind.

In the city of Minsk, for instance, there will still be only one computer for every five schools by 1990.

have to be educated to use com-puters then, in some cases, the training will be purely theore-

schools have achieved a high degree of computer literacy.
In industry, similar problems students all require the rapid have to be faced because of lack of experience. Academiclan turing capacity. The level of of experience. Academician turing capacity. The level of N. P. Fedorenko, director of the USSR's Academy of Sciences' too small, even a guarter of a Central Mathematical Institute century after the first computer central Mathematical Institute says that studies show that the computerisation of planning of plant "makes it possible on average to save five to ten per cent of capital investments and to reduce the unit cost of output by five to seven per cent in comparison with plans drawn up by traditional methods. The century after the first computer was introduced into a Moscow school in 1960.

The gap between supply and demand for computers can be bridged initially by foreign imports, but these will only provide the first stage. By the end of the coming Five Year Plan the Soviet Union needs to be

Computing in

PATRICK COCKBURN

planned operating outlays by 6 per cent.

But these theoretical advan-tages are not enough to encour-

made more efficient, there is also a problem that managers do not receive any incentive for introducing computers of any kind. The production indices that Soviet managers have to satisfy do not show the benefits of computerisation, complain Soviet proponents of computers.

Resistance

Soviet organisations often dislike the idea that they will have to alter their methods of storing information.
Mr Fedorenko says that the

main difficulty in business is that "there is insufficient material interest in the use of computer information, despite their obvious advantages and effectiveness from the stand-point of the interests of the national economy."

The difficulty is not confined

to the use of computers. Soviet economists and scientists are often full of good ideas that are pigeon-holed because their practical application would disrupt the traditional planning mech-

The introduction of computers clearly faces such obstacles, as have other attempts to shift to-wards quality production and new methods of manufacturing. Such difficulties still need to be Juortages

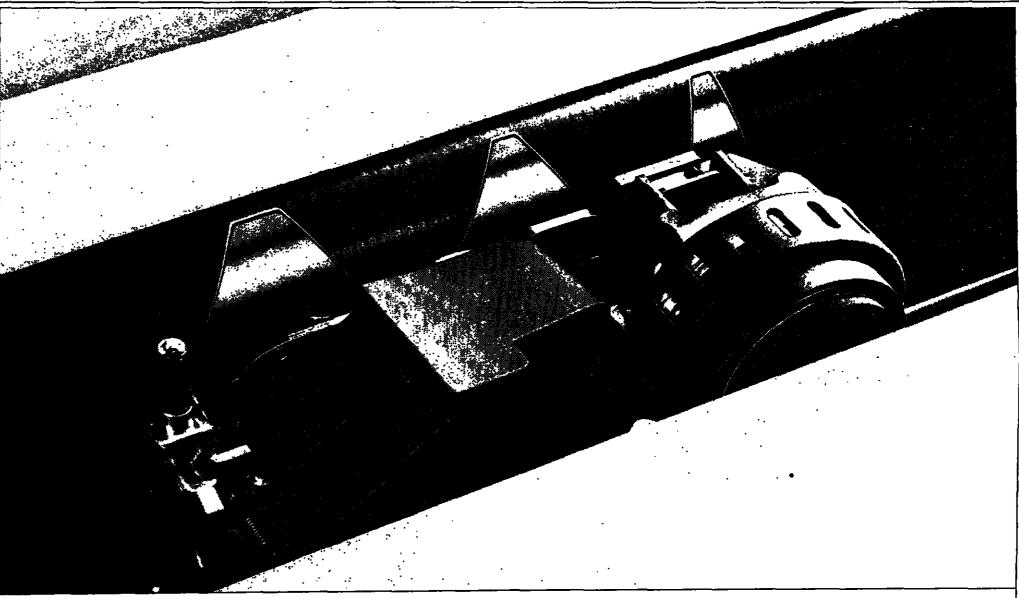
If, from September, students in the last two years of the 11-year course in Soviet schools

Such difficulties shif need to be overcome, even though the Polithuro and the Central Committee have clearly given computers, especially personal computers, especially personal computers. puters, a high degree of priority

For the speed with which such equipment is now introtraining will be purely theoretical—possibly aided by courses on television.

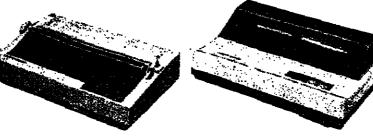
This is not really good enough. It will clearly be well into the 1990s before Soviet replaced to the course of the cours

up by traditional methods. The the Soviet Union needs to be application of models for optimising the methods of pro- puters in large numbers if it is duction and using the output to make up for the time lost of branches reduces capital in- over the last decade.



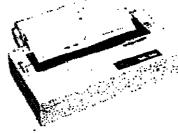
Two Heads are Better Than One.

When you buy a printer you are making an investment. You want a unit you can depend on to produce clean crisp hardcopy. This is why computer users the world over have come to depend on Brother printers. And it's no wonder. Brother's 15 years of experience backed up by the latest in electronics and machining technology has resulted in a line up of printers that's unbeatable.



M-1009/Impact dot matrix printer HR-10/Daisy wheel printer

From compact cash register printers to the latest in professional quality computer printers. A line up topped by the revolutionary TWNRITER 5 which incorporates both a daisy wheel and a dot matrix printing head into a single unit. So choose your printer as carefully as you do your computer. And find out why those that do choose Brother. The company that makes hardcopy a whole lot easier.



HR-5/Thermal transfer printer



TC-600/Briefcase sized word processo

The future at your fingertips. BROTHER INDUSTRIES, LTD. Nagoya, Japan

The Olivetti Personal Computer

"Significantly faster and more powerful than the IBM."

PRACTICAL COMPUTING

Mr. Amazed

المكذا من الأهبل

ike Mr Amazed you may be surprised at the speed and power of the Olivetti M24.

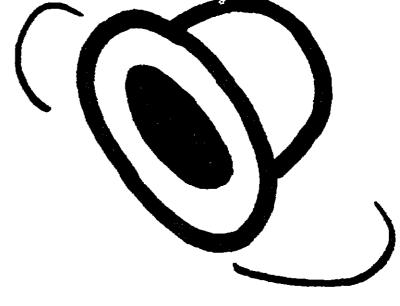
But that's not the end of the story. The M24 comes with a range of standard features which are extras in many P.C.'s, such as high resolution graphics, printer port, and communications interface which allows the M24 to talk to other computers. And together

> can be connected with main frame computers as well.

with an optional board the M24

The M24 is easily expandable, ready to cope with your business growth. And, because of its compatibility with IBM, it can use most of the popular software packages, so you can quickly have it working whatever your specific needs.

And if you want to work with your computer in different locations the M21 has almost identical features in transportable form. Of course, unlike Mr Amazed, you would not be so surprised, if you knew that Olivetti is Europe's number one company in office automation or that it has an



unrivalled record in technical innovation for the modern office.

To be amazed yourself, just call in to your nearest Olivetti distributor or clip the coupon for full details on the Olivetti range of personal

computers.

To: Valerie Belfer, British Olivetti, Olivetti House, 86-88 Upper Richmond Road, Putney, London, SW15. Telephone: 01-785 6666. Please supply me with details on the Olivetti range of personal computers.

Name

Position

Company

Address

Postcode

Tel. No.

@ Roger Harigheaves 1985

IBM is the registered trademark of International Business Machine:

Hardware technology: FT writers highlight the major advances and the impact on a fast-changing industry

A race to produce tiny but rugged machines

New portable

computers

ALAN CANE

have all the power and func-

tionality of an orthodox desk-top computer, but they fall short on what most people

Thte Data General One, for

example, a very expensive (£2,490) and very powerful IBM

comptaible lap computer broke through one barrier last year with a flat liquid crystal screen displaying 25 lines of 80 characters—the size of a con-

Users, however, were not im-

ventional IBM PC screen.

Requirements

understard by portable.

capability.

THOSE WHO doubt the viability of the portable company DG One has not been the puter market may have to alter their opinions in a hurry this year if current speculation proves correct and IBM launches a briefcase-sized personal computer.

It would give an immediate legitimacy to a market which, despite enthusiastic forecasts from analysts (62 per cent of all personal computers will be portable by 1986, one says) and the success of companies like Compaq and Epson, has for many still to prove itself.

Compaq, for example, has shown dramatic growth, based on sales of a "luggable" suit-case-sized portable which it claims to be completely compatible with IBM's desk top Personal Computer (PC). It reported sales of \$329m in 1984.

That figure represented a 196 per cent increase over 1983, the company's first full year of operation. It claims to be the fastest start-up success in U.S. business history and to be the number two, world wide, in the 16-bit personal computer

And although Compag now manufactures a full range of desktop personal machines, its s was, and is, based on portable computers.

Many of the leading computer and electronics manufacturers have now launched what can broadly be called portable computers although that description covers a wide range of machine types.

At the weighty and there are

At the weighty end there are the "luggables," machines like the ill-fated Osborne 1, the highly successful Compaq and IBMs own Portable PC.

Complete with video monitor, disc drives and transformer, they are simply too heavy and bulky to be carried com-fortably in anything larger than the boot of a car.

The next category are described as "lap computers"; small enough to be carried in a briefcase they are commonly distinguished by some form of flat screen display and battery operation. This group includes machines like the UK designed and built Husby Hunter the and built Husky Hunter, the Texas Instruments Pro-lite and the Epson PX-8.

Then there are a variety of pressed with the quality of the "pocketable" machines, from image on the scheen and the

As Mr Dan Terpack, general manager of Hewlett Packard's portable computer division, has said: "A portable computer has got to be powerful and it has to be a full function personal computer, If you make compromises, you are going to be in

"The machine should be small, light and it should run off batteries. It should be very reliable and very rugged. It should carry its own electronic documentation.

"It is silly to have a very small portable product weigh-ing less than 10 lb and carry 12 lb of documentation around tiny computers, a little bigger than pocket calculators with rudimentary alphanumeric keyboards making it possible to program them in Basic, to the remarkably sophisticated Hewlett Packard programable calculators and the Psion "Organiser," a pocket computer designed to store, for example, lists of names and addresses or carry out financial calculations. tiny computers, a little bigger with you to be able to understand how to use it. And because many computer applica-tions really relate to accessing, other sources of information, inherent communication capabilities in the machine are very

So manufacturers are aiming for a tiny, rugged machine with all the functionality of a fullsized desk-top computer. The chief problem until now has been the screen. Conventional The chief thrust in portable personal computer design today is to achieve the right mix of cathode ray tubes are cheap and efficient for desk-top machines, but impossibly bulky in a portportability, power and function-Luggables like the Compaq

Hitachi and Panasonic, are well advanced in this technology and Lap computers are much closer to that ideal but fre-quently disappoint on power or it was their research and de-velopment which led to the 25 lines by 80 character screen featured in the Data General

But, as Data General and its prospective customers discovered, a large liquid crystal screen has all the defects of the smaller displays used on machines such as the Epson PX-8, the Hewlett Packard and the military, to security operations



Data General's personal computer now has an improved version of the liquid crystal display screen plus a new tilt mechanism

viewing angle is and the

Solutions

Almost any technological problem can of course, be solved at a price. Grid, a U.S.based pioneer of portable com-puters, solved the problem puters, solved the problem through the use of an electro-luminescent flat panel display rousisting of a matrix of 320 by 240 picture elements (pixels), each represented by a single binary digit in the computer's memory.

The simplest and cheapest tremely fine control of the solution to date has been to use liquid crystal technology— pixel can be turned "on" or Japanese companies, such as "off" by the processor— it littachi and Panasonic are well pixel can be turned "on" or "off" by the processor—it makes it simpler for Grid to combine text and graphics on

The resulting image is sharp and clear, every bit as good as that generated by a cathode ray tube. But the Grid Compass tube. But the Grid Compass costs almost £8,000, well out of

PX-8, the Hewlett Packard Portable and the Tandy 100 and 200.

The characters are difficult to see in poor light (liquid crystal displays become clearer as the incident light becomes stronger)

So the las sold wen to the propertions and to field engineers (as Husky, which makes a very rugged machine, does in the light becomes to the business community.

In the past few days, Grid has launched a new family of machines, GridCase, to strengthen its hand in this crucial area.

The new machines are as compatible with the IBM PC as is the Compaq portable and have a built in 3.5 inch microfloppy

disk drive.

They feature "plug-in software," software written into read-only memory chips which can be plugged into sockets to give instant access to the programs they contain, and they run off rechargeable batteries Earlier Grid machines were

mains powered because of the requirements of the electroluminescent screen The new machines feature

three screen options—a grey liquid crystal, a yellow liquid crystal, and a red gas plasma.

All are 80 characters by 25 lines. GridCase is still stagificantly more expensive than most cantly more expensive than most of the lap portables available

offers.

And if IBM does offer its own version of lap portability in the next few months, it will be fascinating to see how IBM resolves these critical dilemmas in portable computing.

Laser systems bring shift in the market

Advances in printers GEOFFREY CHARLISH

which the laser printer has been seen as a high cost, high volume product for large computer installations, the technology is coming down market and is already upsetting established manufacturers' positions in the

Until recently the tendency has been to think of printers in "horses for courses" terms—hig speed line-at-a-time machines for the conventional computing room, dot matrix for office printing, daisy wheel for producing letters and executive documents

in word processing.

But the fact is that the laser printer and its derivative, the light emitting diode (LED) machine, if they can be proprice, can offer office automa-tion users all the advantages of the other types in one machine
—speed, letter quality text,
graphics, reliability and, of increasing importance in the
modern office, quietness,
Furthermore, this desirable

combination of attributes nicely matches the trend towards office automation systems which, by definition, have to handle any kind of work quickly and quietly, be it text, data or graphics, or a combination of all three.

However, according to New York stockbrokers Butcher and Singer, the U.S. printer companies, until recently dominant in the market, have been caught napping.

Because they have no back-

and with the plasma display it is over \$6,000.

It remains to be seen whether customers will be prepared to pay these prices for the functionality that Grid undoubted!

pate, says the broker.

It is companies with a background in copiers—which are
technically similar—that are
scoring, from Xerox at the top
end of the market to Canon and
others from Japan in the newer,
office oriented segment.

To add to the pains of the conventional printer maker, other
technologies are also beginning

technologies are also beginning to make themselves felt, notably ink-jet, magnetic, thermal, and even systems that use liquid crystal techniques. They all have two vital advantages: they are flexible (under built-in com-puter control) allowing any fount, graphics, and in some cases colour to be printed, and they are non-impact and there-

(LED) in a print bar extending across the page width. These are switched on and off very rapidly under logic control to form characters and graphics while a photosensitive drum is rotated beneath.

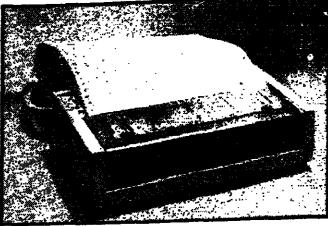
The drum is simply an elec-

trically charged cylinder which is discharged by light from the LEDs in areas where no characters or graphics exist. As the drum rotates, its surface passes through a "bath" of black powder (toner) which sticks to the print areas by electrostatic attraction and is then transferred to the paper. based on reel, carridge and By passing the paper through cassette tape units to ensure heated rollers the toner image that long-term storage of data is scaled permanently on to the

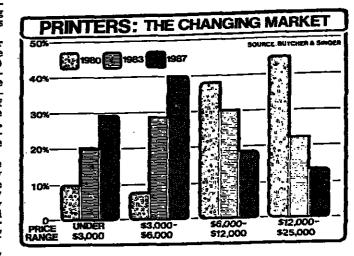
surface. Such systems do away with the main disk that has faired.

These systems automatically copy information stored on the hard disk.

the precision mirrors, bearings, optics and actuators of laser bean deflection systems and



Hewlett-Packard's Think Jet printer



have no moving parts except for the drum. The LED array is manufactured in short length chips which are joined together to give a page-wide bar. The system lends itself well to mass production.

The later stages of the laser/ LED technique have much in common with photocopying, which is why the Japanese, who have scopped the copier market, now seem set to do the same with low cost light-based print mechanisms. Oki Electric, Ricoh, Canon and Sanyo for example, offer systems while in Europe, Agfa is known to have developed a machine.

A major printer announce-ment a few weeks ago came from Apple Computer. Called Laserwriter, it is based on the 300 dots per inch Canon mechanism, a built-in Apple microcomputer and some soft-ware called Postscript.

Variety

Another non-impact techno-

logy of growing importance is ink jet printing. Here, tiny drops of ink from a single or multiple micro-nozzles are electrostation of growing importance is of dot matrix machines. It is possible that 186 be the year in which, for multiple micro-nozzles are electrostation. trostatically deflected to strike the passing paper with extreme precision. Almost any kind of character or graphics can be formed in monochrome

Suitable low end office products are beginning to appear. One of the first was the Quiet Type seven nozzle machine from Siliconics, offering 9 x 7 matrix characters at 180 per sceond. But speeds are going up while prices come down and Hewlett prices come down and Hewlett Packard for example, has a 150 character per second machine that sells for £491, the HP 2225. Diablo, Konica, Printacolor, Sharp and others have all introduced models at prices within the reach of pro-fessional PC users.

essional PC users. All this is causing the present band of conventional printer makers—dot matrix and daisy-wheel in the main—to think

wheel in the main—to think again about prices.

For the user, the options are widening. Apart from the LED and ink jet types, which are likely to drop in price as volume builds, there are other technologies in the offing.

For example, Epson, an important Japanese company in the printer area, recently intro-duced thermal printers working £160. In thermal printing a heated stylus burns marks on a special paper. Although the technology limits the speed, such systems may well satisfy many PC users. There are also growing pros-

pects for magnetic technology. Recently, a Californian company called Ferix revealed the use of a thin film magnetic head to record on a magnetically sensi-tive drum, followed by toner adhesion and thermal fixing. The French company Bull has also introduced a system—using 3,500 magnetic point heads disposed in a line across the paper width. It can work at 6,000 lines

Both Epson and Casio have developed systems deploying liquid crystals. Use is made of the same kind of light shut-off effect as in electronic watches, except that switching between "light" and "dark" is some 200 times faster. After that, the drum/toner/sealing process is similar to LED systems.

Casio says the technology will allow pages of text or graphics to be produced at speeds three to eight times faster than those

It is possible that 1985 will be the year in which, for new PC users, a major shift will occur from conventional impact printing to the new, quiet and reasonably priced systems able to cope equally well with text, data, or graphics.

It is a new art that conven-

tional printer companies will have to master if they have not already done so. Not only are there new hardware technolo-gies to acquire; software control technique that deals with the printing variability also has to he mastered.

Office integration could turn out to be more important than some printer makers think, say

Butcher and Singer.

"Without integration," says their researcher Nicholas Pagon, "the laser printer would be viewed simply as a new printer technology that depends on price/performance parity with the older technologies to succeed. But we believe strongly ceed. But we believe strongly that integration is an important issue and one that brings new market demands."

For that reason alone, the more costly laser printers are likely to become competitive with established technologies.



specialist products to plug into the machine

Fresh challenges in disk memory market

ONE OF the important criteria one of the first companies to upon which companies choose introduce equipment based on microcomputers is that of memory capacity. Clearly the bigger the memory, the greater the potential application for the creasing number of competitors. equipment.

memories come in more than one variety. The computer needs a certain amount of memory just to carry out its calculations, according to the particular program which has been loaded into its working memory. This type of store is normally based on semicon-

ductor circuits
Without other forms of data storage, the result of each cal-culation would be lost each time the computer was switched off, To counter this, makers have resorted to magnetic types of storage. The most popular form of long-term storage is the floopy-disk—for personal computers the 5½ in floopy disk predominates today. Information is stored magnetically on closely-spaced tracks and read with the storage of the sto with a magnetic head, rather like the way that the stylus of

world's leading computer media materials for magnetic storage Brown Disk, the floppy disk manufacturing subsidiary of Dysan Corporation in the U.S. RPS is a leading manufacturer of computer tapes in Furope. Brown Disk, based in

Colorado Springs, was set up only four years ago and has projected sales for this year of about \$4m. RPS has risen quickly in its home market in France. It now

ter known for its photographic products, have entered the field. Other major competitors include 3M, Verbatim and Early in March, Rhone-Poulenc Systems, one of the

companies, which tought a major interest

has an estimated 20 per cent of the French market and hopes an audio record runs over that the acquisition of the grooves. Shugart, in 1978, was American company will give it

a strong foothold in the U.S. where Brown Disk is reckoned to have 60 per cent of the mar ket for the new generation of high density floppy disks.

The agreement with Dysanwhich is merging with Xidex, another U.S. corporation—also covers the purchase of another Dysan subsidiary, DYPY, a specialist European floppy and rigid disk-maker.

RPS is planning to double its annual production capacity for the next few years, in line with world computer consumables

one of the first companies to introduce equipment based on these disks.

Variety of

The market for floppy disks is a volatile one, with an increasing number of competitors. Companies such as Kodak, better known for its photographic ter known for its photographic.

Challenged by under 4 in versions companier systems.

Sony's disks are already capable of storing up to 1 megashed on the term of the market for floppy disks are already capable of storing up to 1 megashed on the term of the market for floppy disks are already capable of storing up to 1 megashed by under 4 in versions for the compact, portable and small desk-top machines.

Sony's disks are already capable of storing up to 1 megashed by up to 31 to 2 market for under 4 in versions for the compact, portable and small desk-top machines.

Sony's disks are already capable of storing up to 1 megashed by up to 31 to 2 market for under 4 in versions for the compact, portable and small desk-top machines.

Sony's disks are already capable of storing up to 1 megashed by up to 31 throughput machines shift a single, intense, modulated in the near future, says the company.

For less portable of storing up to 1 megashed by up to 31 throughput machines of information and this single, intense, modulated in the near future, says the company.

For less portable and small desk-top machines.

For less portable the top end high throughput machines of intense, modulated in the near future, says the company.

For less portable and small desk-top machines of intense, modulated in the near future, says the company.

For less portable and small desk-top machines of intense, modulated in the near future, says the company.

For less portable and small desk-top machines of intense, modulated in the near future, says the company.

For less portable the top end high throughput machines of intense, modulated in the near future, says the company.

For less portable and this that the near form in the has about 90 per cent of the market for under 4 in disks. Sales are growing at a rate of about 50 per cent a year. Sony, which introduced its

challenged by under 4 in ver- nes computer systems.

disk about two years ago, hoped then that its version would become the de facto standard against three proposed disk types from Maxell, IBM and Dysan. The advantage of such disks for portable and small personal computers is in their small size which have the ability to store as much information as the larger types. Sony now dominates this em-

bryonic but rapidly growing market. It says that it is winning 75 per cent of the new busi-ness for under 4 in disks. Already Hewlett Packard, Apple

mation storage is needed, fixed or Winchester disks are being increasingly adopted. These memory systems are based on a thin layer of magnetic material, usually Feric oxide, laid on a circular rotating disk. A driver unit can contain more than one disk: informa-

tion, in the form of binary digits is stored on concentric tracks, recording onto the mag-netic medium—just like floppy disks, each track is subdivided into a fixed number of sectors. But even these devices can suffer problems, so companies have developed back-up systems ing in personal computer sales, there will still be an increasing demand for disk memory.

The 5½ in disks are being mitted to the Sony disk while three major, but so far unnamed manufacturers are forecast to manufacturers are forecast to manufacturers are forecast to the main disk unit has failed. These systems automatically adopt the disk later this year copy information stored on the hard disk.

The Complete Computer Professionals

Many people supply computers - few back up the sale with the total support provided by Interface Network. Each carefully planned Interface Business Centre provides complete support services, including training, software, software consultancy and development, system maintenance and

full engineering cover. There is a separate division dealing with the day-to-day and specialist needs of larger corporate users providing them with the benefit of the resources of a national network.

Interface have been described as 'the most professional people in the business. Which is exactly what you need for your business.

Interface Business Centres:

West End – 18a/20 Baker St., London WI 01-186 9121 City-289/293 High Holborn, London WCI 01-101-1667 Kingston – 66 High St., Kingston, Surrey 01-5-1 1055 ingstoke, Belfast, Bristol, Manchester and Plymouth.

No limit for the 'add-on' industry

'Bolt-on' devices PHILIP MANCHESTER

architecture. IBM has made the

computers to outsiders. IBM broke with a number of precedents with the PC. For the first time in the history of the giant, it employed outside chip technology, rather than using its own, and it utilised existing industry software, rather than developing new packages and it published a manual giving

top of the best-seller lists. add-ons to futifil any number of different purposes from fast scientific processors to communications boards. Also, there are special purpose plug in options to transform the IBM provided a substitute board to the ones that IBM provides—often much cheaper and providing more function. The Mylex Corporation, for example, will provide a combined colour and mono chrome graphics card where It is now possible to buy add-ons to fulfill any number prions to transform the IBM chrome graphics card where control a mouse driven Mackin- IBM will only provide them at

A key area is communications. A number of companies provide plug-in boards to en-able the PC to communicate via modems to other computers and networked services.

been adapted by a number of software firms, for instance, to provide terminals emulations for well known maintrame communications terminals. This has enabled the PC to replace the traditionally expensive terminal as well as providing local computer power to users.

The above products just

involve plugging a card into the PC, but there are other products that require a card and an external "box" of some kind. Usually, "hard disk" drives and tape streamer back-up devices fall into this category.
The board is needed to control device into one of the sockets the device as additional pro-in the back—much the same gramming is needed with most add-on devices.

Applications

used for backing the high capacity hard disks, can be used with IBM PCs—the XT, the AT and with any of the three major the PC itself—and comes with an appropriate interface card to suit the specific computer.

market in specialist applica-

separate (and very expensive) how long IBM will leave the door open to outside suppliers.

The above products just

gaps it is forced to leave.

The PC development was accomplished under a special scheme which allowed the unit to operate autonomously. This could be one explanation for the

PC unit was formally absorbed into the IBM corporate organisa-tion, ending the unit's ability to year's announcement of a statement of direction with reference to networking. IBM seems intent on closing off the booming market for independently sup-

Despite all of this activity, gaps it, necessarily, leaves there are serious doubts about behind.

ONE OF the major selling points of the IBM Personal Computer since it was first launched has been its open bardware specifications for the PC readily available to other suppliers—an unusual policy for a giant company with a reputation for closing off its

the exact hardware specifica-tions of the new machine. As a result, a massive "add-

on" industry grew alongside the IBM PC's relentless climb to the

tosh type machine, a voice con-trolled computer and even a remote terminal to a large mainframe computer.

mainframe computer.

There are basically two ways that these products can be connected to the PC. The first involves plugging a circuit board inside the machine in one of the vacant slots catered for in the original design. The second method is to plug the device into one of the sockets. way that one would attach a

The so-called Irma board has

Another major area is in graphics where companies offer a substitute board to the ones

The ATP 20 tape streamer,

There are also some unusual additions to the PC. The UK company, Penman Products, has act on its own. Also, with last developed a robotic drawing implement. The Penman device can be laid on a piece of paper and instructed to draw designs' or graphs by the PC. The Pen-man, also available for the BBC micro, costs between £200 and £300 and will no doubt find a

to bring its personal computing n line with the rest of its offerings and make it more and more difficult for others to fill the

The recent appointment of the personal computer line, Philip Estridge to IBM headquarters in Armonk, is an indication of how seriously IBM takes the PC nowadays. Estridge headed up IBM's PC development team in Boca Raton, Florida, under a unique business structure for

openness of the PC design. However, in January 1985, the

plied communication products. This, of course, need not be bad news for independent sup-pliers, provided they keep up with IBM and keep plugging the



Falling orders worry chip-makers

WHAT does the semiconductor industry have up its WHAT does the semiconductor industry have up its starting that chip-sleeve for personal computers? New microprocessors? it is hardly surprising that chip-makers are not enthusiastic new manager and enthusiastic new manager are not enthusiastic New memory chips? New controller chips? New

All of the above, the chip-makers reply. Overwhelmingly, however, semiconductor companies are more concerned about the lack of personal computermaker orders for current products than they are about providing parts for the next generation of personal computers.

Semiconductor

manufacturers

LOUISE KEHOË

As semiconductor makers count their losses, there is a

personal computer will not fade away like previous co

growth rate it will continue to

ctronics products, but until the market settles into a steady

For semiconductor manufacturers, personal computers have been a mixed blessing. What looked like a golden oppor-tunity two or three years ago has turned into a lead weight, down into a steep recession.

The explosive growth of the personal computer market gave sonal computer sales growth slowed down. A number of per-sonal computer companies failed. Others pulled out of the market. With them went the chip-makers a major boost in 1983, when they were struggling to find orders. Personal com-puters lifted the semiconductor chip orders.
The impact upon semiconductor manufacturers has, however, industry out of a two-year re-cession. Companies such as Intel and Advanced Micro Devices spread far beyond the cancellations and order postponements of the personal computer industry. There has been a domino effect throughout the and Advanced Micro Devices that make the microprocessors and peripheral chips, used in IBM and IBM-compatible computers, benefited greatly from surging demand for their products.

Major factor

In 1983-84, personal computer-makers accounted for approxi-mately 20 per cent of all semi-conductor purchases. This new market for chips was a major factor in creating a record 50 per cent growth in the U.S. semiconductor market last year.

growing appreciation in the industry that the personal computer — just like the video game and the digital watch — is susceptible to the fickle fancies of the consumer. The personal computer will not fede With their excess demands for certain types of products, the PC-makers created short-ages. Short-term, this had the ages. Short-term, the effect of accelerating semiconductor order growth. Chip customers from other sectors of the electronics industry placed huge orders to ensure their

upplies. disrupt semi-conductor supplies, Then the bubble burst. Per- the chipmakers believe.

In the current circumstances, has about developing new products the personal computer

To the question: what does the semiconductor industry have to offer PC-makers in the future? The answer is com-monly a derisive snort. "Inventory," responded one of the largest U.S. chip-makers.

New chip product developments, begun during the sunshine days of the personal

Performance

The key element of computer market boom, are however starting to reach the market. Several technology

trends are emerging:

• A move toward customised chips for personal computers. Microprocessors that incorporate "peripheral" functions, such as memory management.

• Faster memory chips.

• Complimentary metal oxide semiconductor (CMOS) devices.

 New packaging. The move to custom chips for use in microprocessors is already aparent in such soonto-be introduced personal com-puters as Commodore's Amiga domino effect throughout the entire electronics industry. As systems manufacturers realise that chip shortages no longer exist, they, too, have cancelled orders. Inventories, stock-piled during the days of shortages, need not be replaced tiday. Chip orders have spiralled downward at an alarming rate. which includes its own graphics

they differentiate their products? The answer seems to be in the use of custom chips,

The semi conductor industry today's products. The "886" will be built using CMOS technology so that it will use less power than today's micropro-

economically viable for use in low-cost products through the development of semi-custom" design methods such as the cell libraries now offered by several companies which allow the relatively quick and inexpensive design of custom chips.

Industry experts expect ersonal computer-makers to take full advantage of semicustom chip design methods to

The key element of a new generation of personal computers is, however, the microprocessor. At the moment, Intel's 8088 is the heart of the IBM PC and ail of the "clones" of that machine. The Intel 286 is used in IBM's "PC AT". Texas instruments and Kaypro are the first companies to offer compatible machines using the same microprocessor chip. Many others are expected to follow. The key element of a new

follow.

Toward the end of this year,
Intel is expected to introduce
the "386," a super high performance 32-bit microprocessor that can be expected to provide which includes its own graphics controllers.

The trend toward standard operating systems, such as MSDOS and UNIX, brings with it a problem for personal computer manufacturers. How can they differentiate their products? The answer seems to be used to provide the brain-power to personal computers coming to market in 1987-89. The "386" has at least twice the speed and power of the current "286," but of the

that are expected in the coming months include a product called the 80886 which is a highly inte-grated 16-bit microprocessor. Details are sketchy, but Intel's enthusiasm for CMOS would suggest that the 80886 will also be a low-power part. Functions generally performed by peri-pheral devices will be condensed onto a single chip.

Intel is also working on its own graphics co-processor to be called the 82786. This will be a device that will produce highresolution graphics on personal computers and computers used in, for example, computer-aided

design systems. design systems.

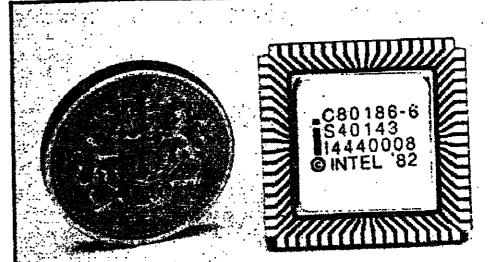
Meanwhile, Motorola has already announced a high performance full 32-bit processor called the 68020. The chip has been designed into some high performance microcomputers but is yet to reach the personal computer market. A drawback and account of the computer of the com computer market. A drawback of the 68020 is that it is not folly compatible with earlier 68000 family processors.

Hitachi is, however, expected to address that issue by launch-

ing its own 32-bit 68000 compatible microprocessor soon.

Faster microprocessors require a super-speedy memory chip to keep up with them. The semiconductor industry plans to oblige with a new generation of dynamic RAMS (rapid access memory systems)—the chips that store data in a personal computer until it is safely filed with a recomplete same size as those read by microprocessors. The traditional array architecture of the dynamic RAM is being the dynamic RAM is being changed to suit the microprocessors.

Both memory and microprocessor chips are increasingly being made using low-power



The Intel 80186 microprocessor (shown next to a £1 coin) from Triumph Adler's new P50 microcomputer which is to be launched at Hannover. TA claims that the new model is the first European micro to use the Intel 80186 which makes it "two to three times faster than the IBM PC"

away on a disk.

Dynamic RAMS used to come in one "vanilla flavour." Over the past two years, however, chip-designers have developed special versions of dynamic RAMS optimised for use with microprocessors.

These memory chips store "words" (strings of data bits) that are the same size as those read by microprocessors. The

CMOS (complementary metal assumed the personal computer oxide semiconductor) tech market will be ready to take nology.

advantage of its low-power requirements.

Novel man-machine interfaces include voice input and output devices.

Search goes on for new speech response systems

FLAINE WILLIAMS

DESPITE the computer industry's oft-quoted description of its products as "user-lime operational Computer company of the product of the produ friendly." many 1 tors are deterred from applying personal machines by an un-familiar computer keyboard.

Though computer education in schools will obviate the problem in the long-term as children are already conversant with the keyboard—unlike their parents companies have realised that they must allow people to use computers without necessarily using the keyboard to input in-

The early solution to this The early solution to this problem was a hand-held input device, called the "mouse," such as is found on the Apple Lisa, and Macintosh and Xerox's Star computers. Microsoft was one of the first companies to develop the mouse concept. The input device is connected to the computer: its movements are copied by a cursor on the to me computer: its movements are copied by a cursor on the screen. This allows the user to move the cursor to all parts of the display, selecting options, presented to the operator on the screen or building un graphic screen, or building up graphic pictures, for example. Normally, the user is presented with a set of options on one part of the

For word processing applica-tions, for instance, this could be commands such as delete, insert or move. The rest of the screen could be taken up by the text itself. By moving the cursor — by moving the mouse—to the command portion of the screen and then to the mouse—to the command portion of the screen and then to the text, the user can edit a document without having to operate any of the keys on the main

Graphics tablet

For more specialist applica-tions, such as computer-aided tions, such as complex version design, a more complex version of the mouse is used in conjunction with a piece of equipment called the graphics tablet. In order to achieve wide use in commerce and industry, future speech-response computers will need a vocabulary the mouse on an ordinary desk, the mouse on an ordinary desk, and called a researchers do not anticipate. it is moved on a pad called a tablet. Along the edge of the tablet are the commands and, as before, the mouse is moved between the command portion and the working space which is used to draw images on the

Sometimes a light pen is used, instead of the mouse. Again, the user can either use a tablet or draw directly on to the screen with the lightpen.

Hewlett Packard's touch screen is another way of entering information without using extra equipment. With touch screen, the user simply points at symbols on the screen which offer a number of options. The hub of such systems is good software which

hallmark of an intelligent sys-tem. The computer industry is Interface devices not the only sector interested in speech recognition and synthesis. Such technical advances are of special interest to military equipment makers and to the automotive indus-

> Computer companies, such as IBM, Logic, Dragon Systems, International Computers, as well as Ferranti, Plessey and Smiths Industries are making substantial research efforts in software for speech devices.

In May last year, Texas Instruments, for example, built extra circuits into its personal computer which could respond to human speech. However, present systems are limited in the number of words which can be recognised by a computer. The human operator has to be prepared to "train" the computer to understand his or her

Training

TT's system requires this training process though it has reveloped a technique to reduce the amount of data which would normally be required to reproduce a sound. It is called linear predictive coding and is a way of splitting up a sound, rather like the way that series of images are recorded on mov-ing film. On playback, the sound appears to be continuous as the computer "guesses" the

When identifying a voice, a computer compares speech pat-terns against those recorded in the databank. The computer can indentify 50 words at a time but TI has extended the time but TI has extended the vocabulary by drawing up libraries of 50 words each.
Logica, in the UK, is trying to extend the range of speech, recognition. It is using the Logos speech recognition software which the company hopes will lead to the use of more actual sounding language inter-

faces and systems which can identify more than one voice. In order to achieve wide use any major breakthroughs with speech technology products this year, but, even so, the demand for systems is likely to increase.

natural-sounding language inter-

There are occasions when a personal computer-user does not want to "converse" with computer but wishes to enter information quickly into the machine's memory. Several companies have developed optical character recognition systems which can read ordinary text and convert it into the form of binary digits, suitable

for computers.

Many of these systems are costly but at least one has been reduced to a price-level suitable for personal computer users. Oberon International has devepresents the user with loped a £400 system called the sophisticated systems, in a simple way.

The ability to communicate the communicate the systems are supported to the system of the systems are supported to the system of th The ability to communicate be transferred to a microcomwith a computer using human puter, such as a Macintosh, at a speech is considered to be the speech of 25 characters a second. Several operating systems and free bundled software.

ndStar - Micropro Imernational perCale 2 - Sorcam/IUS Micro Software M. Personal Beste, GSX - Digital Research Inc.

FLINTSU Mikroelektronik MICRO COMPLITER SYSTEMS

Hargrave House Belmont Road Maidenhead Berks SL6 6NE Tel: 0628 76100 Telex: 848955



Chip-makers used to boast about how useful CMOS chips would be in portable computers. The low power requirements of the chips would mean longer battery life, they pointed out. These days, with the portable computer market failing to materialise as a major segment of personal computers, less emphasis is placed on portability.

CMOS will, however, be the dominant semiconductor technology that will be important for personal computers and computer manual devices." These are chips that can be bonded directly on to a circuit board. They take up less space and are more easily handled by automated equipment than traditionally packaged chips.

With surface-mounted chips, personal computers will become bility.

CMOS will, however, be the dominant semiconductor technology for the next several years and eventually, it can be traditionally packaged chips. With surface-mounted chips, personal computers will become smaller, with higher memory capacity.



gives you computer performance that is out of this world. The FM16s is capable of expanding to a five terminal multi-tasking, multi-user configuration with total flexibility and the minimum of hardware redundancy. It runs under our latest Concurrent CP/M, CP/M 86, MS-DOS and P-System operating

systems. The entry level business system comes complete with WordStar, SuperCalc 2, Personal Basic and GSX - and all at under £ 1950". The FM16s - one of the great achievements from Fujitsu.

Price as at April 1985.

The operating system dilemma

MOST of the excitement in personal computers today is about very recent developments-the launch by Motorola and Intel of the latest generation of microprocessor chips, for example, or the appearance of a new kind

In the systems software world, however, the hottest topic is Unix, an operating system for minicomputers and microcomputers that is now almost 30 years old.

by Kenneth Developed Thompson and Denis Ritchie at AT & T's Bell Laboratories it languished virtually unnoticed except by the computing cognoscenti until with the advent of today's very powerful machines (16 bits and more) it took on a new lease of life.

First, a word about operating business software.

Mr Kildall left Intel to form bits own systems software com-

corronised property if they are to execute applications programs efficiently.

Decisions must be taken, for written by Microsoft. PC/DOS example, about how to allocate blocks of information.

Decisions

gram will only run as effectively the next starts, which means as it is allowed to by the that a user could be running a operating system, so there is a spreadsheet package while the continual search for operating systems which use the resources of a quite separate program.

for these eight-bit machines to tasking, but for networking.

A new lease of life for Unix

systems: computers carry out tasks automatically because of his own systems software company Digital Research. CP/M stored in their memories which they obey in sequence, one after system for the eight-bit personal the other memories which the store of the company of the store of the st Specific tasks—running a computers and thousands of business programs were written for CP/M machines.

Software authors

Software authors

Software authors

tions programs.

But computers are complex cause they knew that their work beasts with many component parts which have to be synchronised properly if they are to execute applications are computer in 1021 with a computer in

blocks of information to own MS/DOS product tailored specific areas of memory. There for the IBM PC. It was has to be some way of deciding how to use the computer's disk memory and how to feed information to printers or other perinters. It was designed to exploit the power of the Intel 80SS microprocessor chip which IBM used in its original PC, a chip which was pherale half way between an eight-bit processor and a true 16-bit pro-The IBM PC quickly became the industry standard and thousands of application pro-

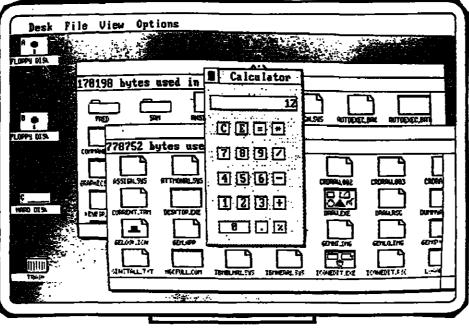
The operating system takes grams were written for PC/esponsibility for these DOS and MS/DOS. The operating system takes responsibility for these decisions, allocating the resources of the computer in the best possible way. Operating systems are large and complex programs and they are important for two principal out up to four tasks simultaneously—one task does not have to be completed before First, an applications pro- have to be completed before

of the computer to their best ability.

Second, an operating system can be a powerful force for standardisation and therefore progress.

The emergence of a new and significantly more powerful breed of chips, the Motorola 68000, the Intel 8086 and 80286, Zllog Z8000, National Semiconductor 3200 and Western Standard Semiconductor 3200 and Western Semicond Early personal computers tern Electric WE32000, changed were really only of interest to the picture significantly. There was a dearth of operat-

Intel engineer, Gary Kildall, de-veloped an operating system, the best use of the power of CP/M, which made it possible these chips not only for multi-



The calculator (above) by Digital Research is an example of GEM Desktop software

Most industry observers corde agree that while there is little dard. future in operating a number of terminals from a single microcomputer — (multiple access computing) the importance of networking one microcomputer to another cannot be over-

emphasised.
Mr William Gates, chairman
of Microsoft, says. "Before networks, the machines sat in isolation and that is a problem inside the company because everybody is working off different sets of data."

"That can lead to chaos, because the personal computer is in a sense an accelerator. It allows you to move faster and unless you move faster in a very careful fashion, you can achieve a great deal of achieve a confusion."

Standard

Microsoft has developed an extension of MS/DOS for net-working; Digital Research has a new operating system called Concurrent DOS/286 which supports multi-tasking and networking and is able to run any application written for PC/DOS. But as a new report from the UK systems house, Digitus, makes clear, Unix, with all

VHS has become for video re-

IBM has no control. The Digitus study says that
Unix is now "off the ground and
rising quickly" because of:

I—AT & T's direct entry into the personal computer market place and its commitment to support Unix and Unix optimised hardware.

nercial links

3-Statements of direction supporting Unix from IBM. 4—The formation of a Euro-pean club of established manufacturers — ICL, Nixdorf, Philips, Siemens, Bull and Olivetti-to support Unix, to atract Unix-based software and to sell Unix systems 5—The adoption of Unix by

2—Olivetti's commercial links with AT & T in the U.S. and -Olivetti's com

every major independent semi-conductor manufacturer for both their 16 bit and 32 bit offerings.
6—The fact that over £100m has already been invested and that investment is rising in creating software that runs under Unix.

7—The substantial numbers of graduates from computer these capabilities and more, science departments who are seeks to be for computers what already trained in Unix.

corders—the worldwide stan- soft and AT & T announced dard. Many companies are releases of Xenix (Microsoft's attracted to Unix as much for own version of Unix built the fact that it represents a under licence) and Unix potential standard over which System V (the most modern version of Unix).

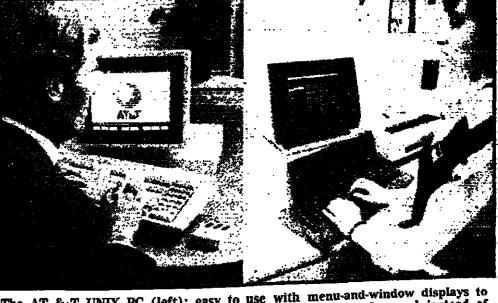
Significance

In other words, Microsoft and AT & T are working and AT & T are working together on what they hope will be the definitive version of Unix. "The real significance of System V," says Digitus, "is not in the improvements, but in the fact that AT & T is promoting a common standard and other suppliers are beginning to

Some argue that Unix, good as it is, hardly warrants this treatment but Digitus disagrees. Its report says: "There is no such thing as 'best'; there is only 'most suited' for the purpose of the purp from the selection avail-

"In this regard, Unix can be compared on one scale to MS/ DOS as the operating system in the right place at the right time backed by the major computer, communications, semiconductor and software companies." On another scale, it can be

compared to a minicomputer operating system like DEC's RSTS which it has already outsold in the UK."



The AT & T UNIX PC (left): easy to use with menu-and-window displays to guide the user and an electronic "mouse" that can often be used instead of the keyboard. Right: the Sirius 1 personal computer from ACT, UK

Case study: how a personal computer software package has proved to be a valuable aid in industrial production and sales forecasting

More information at virtually no cost

FINE MALT whisky takes a long time maturing before it can be drunk, and many a per-ceptive drinker will bless the years it spends in the cask. But planning supplies 10 or 12 years planning supplies 10 or 12 years ahead can be quite a headache for Mr George Jenkins, financial director of William Grant and Sons, which produces the well-known Glenfiddich malt whisky. "We are distilling today for bottling and sales in 1996—after I have retired," says Mr Lepking

Forecasting future sales and planning production and stocks around the forecasts seems rather like necromacy when you are trying to look that far ahead, and Mr Jenkins says that over-optimism has, in the past, ben confounded by recession for the whisky industry. But for a family-owned company like Grant, cash flow must be tightly controlled, so Mr Jenkins has introduced a three-year plan.

The plan had at first to be prepared manually, but it could take months just to gather all the figures from different departments. Although Grant already had an IBM 4300 main-frame to handle accounting and

There was trouble from the

"We were the smallest company using the system, but we had the largest model," recalls Mr Jenkins. Above all, the process of working with a remote bureau was cumbersome and

Ingredients

The solution was MSA's PC Software, used with an IBM PC. The £4,500 package includes graphics, word-processing, mailing list and telecommunications functions But from Grant's functions. But from Grant's point of view, the main ingredients were a link to the mainframe computer called ExpertLink and the MSA PC Spreadsheet

The system allows Mr Jenkins to draw information quickly and simply from the main computer and insert it into his model—a matrix of 250 rows by 40 columns, with sub-models representing business areas.

He can break down costs, export marketing functions, this sales and profits for each of was not felt to be flexible Grant's distilleries or for enough for the three-year plan.

In 1983 the task was handed as predict the effect that various

cash flow and profits. This helps him keep much tighter control

Mr Terry Gorman, Grant's data processing manager, says that the planning model alone would have justified the cost of the personal computer and the MSA PC Software. In fact, they have been used for much more, and the company now has two PCs at its Paisley headquarters, one at its Girvan depot and one

at its London sales office.

Indeed, the PC is now used in one of Grant's production systems—using the PC as a link proved the simplest way of converting data from the microprocessor running production at one of the distilleries into a form that the head office mainframe computer can

Acceptance

Mr Gorman sees the ability to load information directly from the main computer as crucial in winning acceptance of the PC within the company—"if people have to key data into the PC, they won't use it," he says. Instead, managers are queueing up from the crack of dawn" to run their programs on the PC.

William Grant first moved into the personal computer field with the expectation only of breaking even—"our manual procedures had always been very good," says Mr Jenkins, but I could see that we were going to fall behind our competitors if we did not get our

Now, he finds that the PC has given him much greater access to information at virtually no cost. Using the planning codel, Mr Jenkins can watch not only his own company borrowing more closely and spot early danger signs; he also believes it gives him " more and helps him to identify trends in the whole whisky industry.

GEORGE GRAHAM

Does it matter

who you rent

your micro

from?



which provides the individual manager with a combination of the most popular facilities of a personal computer, an advanced push-button telephone, data communications and messaging.

purchasing-decisions THE ADVENT of the personal professional computer is bring- all. bility (25 to 22 per cent), over- all. Froduct type STAND ALO • Second, specification: When it comes to the fine detail of

Changes in computer

ing with it a significant change in buying-decisions within larger companies. When the computer market

was dominated by mainframes, companies only felt safe if the decision to buy rested firmly in the hands of a technological wizard, but that is all changing with the micro revolution. In Britain, which has the largest market for personal

computers in Europe, a new survey shows that purchasing responsibilities for microcomputers and word processors are now comparatively diffused within companies, with four job groups (directors and partners; financial directors, accountants and company secretaries; pur-chasing and management services: and office managers) all making a significant contribu-tion to the decision-making pro-

cess.

But the most active decisionmaking group of all, according to the report by the National Business Equipment Survey (NBES), are the financial directors, accountants and com-

· First, initiation: Purchasing and management services are most likely to be the ones to start the ball rolling (33 per cent, according to the survey). However, the three other groups show a significantly high level of involvement, with a mere 3 per cent variation of responsi-

specifying, the involvement levels of the four groups drops; although one group are an im-portant exception to this trend -nearly a third of financial directors, accounts and company sectaries claim responsibility for final specification.

• Third, selection of brand/ supplier: at this key stage of the buying process, the consultative four of the job groups, examined by NBES, show increased involvement in the decisionmaking procedure, with the exception of office managers. Financial directors, account-

ants and company secretaries play the pre-eminent role, with 38 per cent saying that they are consulted at this stage.

Fourth: authorisation. Again, financial directors, accountants and company secretaries take cent claiming that they give the final go-ahead to buy. Directors and partners come second at 18 agement services are thir at 13 The buying procedure is per cent, while office managers usually in four stages:

record the lowest level of involvement at only 5 per cent.

Jean Davies of NBES comments: "The buying process for micros has developed like the intricacy of a tangled web. Gone are the days when suppliers could set their sights on sweetfalking the DB memory." sweet-talking the DP manager.'

MICHAEL WILTSHIRE

Cut out the

mysteries of

the IBM PC

Data Logic are now offering special IBM PC training

courses for business executives. Find out more now.

Send to: Data Logic Education, 29 Marylebone Road,

London NW1 5IX. Or ring **01-486 7288.**

IBM PC TRAINING COURSES

Market Values by Products

A summary of market shipments forecast for personal computers in the corporate environment, 1984 to 1989, value by product type. These values are expressed in \$m at constant end-1984 levels, on an " if sold " basis, and rounded

STAND ALONE HardwareSoftware	453.39 146.26	570.15 278.29	639.35 479.52	651.95 699.89 1,351.84	618.25 770.26 1.288.51	583.71 827.78 1.411.49	3,055.74
Total value	599 .65	8 4 8.44	1,118.87	T'99T'94	7,490-91	1,411.43	0,115.13
NETWORKED Hardware Software Total value	41.48 8.53 50.01	94.58 32.18 126.76	316.80 169.20 486.00	923.24 596.96 1,519.40	1,701.00 1,299.38 3,000.38	2,730.03 2,520.00 5,250.03	
PORTABLE Hardware Software Total value	82.52 34.50 117.02	152.65 92.89 245.45	278.52 221.55 5 0 0.07	361,23 374,88 736,11	497.10 617.56 1,114.66	634.91 897.29 1,532.20	
ALL TYPES HardwareSoftware	577.39 189.29	817.38 403.27	1,234.67 87 0 .27	1,9 3 6.52 1,670.83	2,816.35 2,687,20		10,753.57 9,876.64
Grand totals	766.68	1,220.65	2,164.94	3,607.35	5,503.55	8,193.72	20,630.21
			-		Source: Fro	st and Sul	livan, 1985.

Expert help made all the difference

Computer selection a case study

YOU DON'T have to be an expert to choose the right com-puter for your business, though expert help can make all the difference.

Gordon Hendry, managing director of two-year-old Glasgow medical supplies distributor, Hospital Management and Supplies. Dr Hendry, a former consultant anaesthetist at the city's Victoria Infirmary teaching hospital, started his own business when his failing eye-sight made a continued medical

sight made a continued mencal career out of the question.
Starting life with the backing of an enlightened local building company. HM&S bought a general accounting package run on a Sirius 16 micro, guided by the informal advice of Hendry's former colleagues.
"We simply asked for a pack-

age and installed it. That proved to be a bad move," he reflects. initially, the system was well able to handle HM&S's needs,

which included invoicing, producing advice and delivery notes, stock control and sales reports. But within a year, the number of products distributed by the company and its 19 employees had doubled to 4,000 and the system was getting over-

"It could no longer support cessing required. We needed something that could be updated as the business expands,"

which all too many first-time However, its effects are computer buyers overlook. HM&S was lucky in that its

parent company already had access to advice through its auditors, Arthur Young. With the help of the firm's Microcentre computer advisory ser-vice and a Government grant, HM&S was able to compile a list of functions that the new computer would have to perform —a far more structured approach than it took when buy-ing its first system. That is the experience of Dr

> Sales analysis The company needed access to regular analyses of sales— £700,000 in the year to March, 1984 — broken down by each of its 65 suppliers. The system had to be able to store and update at least two prices for each item: one for National Health Service bulk orders sold at a discount, and a higher price for private sector deliveries. There also had to be runindividual order and separate stock levels, which could be called up on a screen without interrupting tasks being performed at other workstations.
>
> That list formed the basis of tender document sent to seven local computer companies selected by the Microcentre. Optim, a U.S.-owned computer maker, provided a £26,000 mini

> with four screens and two printers. The price included £6,000 for a software package and £1,200 for staff training. The system was installed at the turn of this year, but is not yet fully running because HM&S is taking the elemen-

beginning to show.

"We have speeded up the flow of products through our warehouses and the sytem is enabling us to chase up invoices more quickly," says Hendry. Moreover, the mini contains enough spare memory capacity to avoid the need to change machines again for the next few years. Hendry's experience illus-

Hendry's experience illustrates some of the most common pitfalls that lie in wait for small business computer buyers. Andrew Swann, manager of Arthur Young's Microcentre, says: "A lot of people mistakenly think you can just go out, buy some hardware and a software package press a buttor." software package, press a button and your problems are solved."

Swann strongly recommends that first-time business computer buyers should get consultancy advice before they embark on a purchase. Such advice is expenzive—a basic four-day programme with Arthur Young costs £800 and consultancy fees generally vary from £40 to £100 per hourbut the consequences of making the wrong choice can be even more costly.

Trade surveys suggests that £60m a year is wasted on the purchase of useless equipment and it is not hard to find examples of small companies that went bankrupt at least system which they failed to understand or which proved next few years," points out Mr unsuitable for their specific Eric Bagshaw, senior consul-

some cheap and nasty system which destroys all the data they have created for it," says is that a number of small busidated as the business expands," tary precaution of computer- Alan Wood, managing director nessmen wrongly see micros as a says Dr Hendry, echoing a point ising in easy-to-manage stages. of Digitus, one of the larger way of solving management

London computer dealers. "We problems. Mr Clive Leyland, take the view that the customer principal in charge of accountdoes not always know best."

Consultants

Many small businessmen find many small dustnessmen and consultancy fees hard to justify since the benefits are hard to measure. Mr Doug Eyeions, secretary general of the Computing Services Association, them. The first-time user generally does not understand why he peads to calculate all. why he needs to splash out all that money to pay for someone to make his decisions for him, especially when he thinks he can get it free from computer magazines or from talking to salesmen."

One common observation that many first-time buyers have a habit of thinking backwards in the sense that, if left to their own devices, they would choose the hardware before the software. The kind of machine you will need will be entirely dictated by the functions it is turn dictated by the software. the set of instructions which tell a computer what tasks it must do. In any case, there is little technical difference between the several hundred micros on the market.

"It doesn't really matter what the name tag is on the front so long as it's well sup-ported and the company that makes it doesn't go bust in the tant with the National Comput-"The risk is that they buy ing Centre's microsystems divi-

Another common observation

ants Arthur Andersen's Micro-guide advisory service, says: "Many people approach us be-cause they have lost operational control of their business and see a micro as a relatively cheap way of getting it back.

A micro will do no more than automate the information already available—and if a man-ager has already lost control of his information, a computer will only hasten that company's de-cline. Says Mr Leyland: "The cine. Says Mr Leyland: "The financial implications of that process, while unquantified, can be enormous."

WILLIAM DAWKINS

The top six suppliers

EUROPE saw an 85 per cent rise in sales of office automation sysetms in 1984, totalling \$2bn worth of equipment, according to a recent survey by Wharton Information Systems.

Sales of personal computers for the office reached the £1,000m mark with a 74 per cent increase on 1983's figure. The top six suppliers of office personal computers, accounting for 74 per cent of the market were:

IBM 25 ACT DEC Olivetti

Wharton Information Systems, 12, Eton Street. Richmond, Surrey TW9 IEE (telephone 01-940 7366).

Briefly, yes. Especially if you'd

like the most for your money -including peace of mind. Some rental companies know both the computer and the rental business. Others are still learning one or the other - or both

Some rental companies specialise in professional advice in selecting and using your micro. Others specialise in glass and glitter. Some have adequate capital

and equipment stocks to deliver what and when you wish. Others ask you to COMPTOMISA When you come to CCA, you don't compromise. Because we don't compromise. For full

information attach your

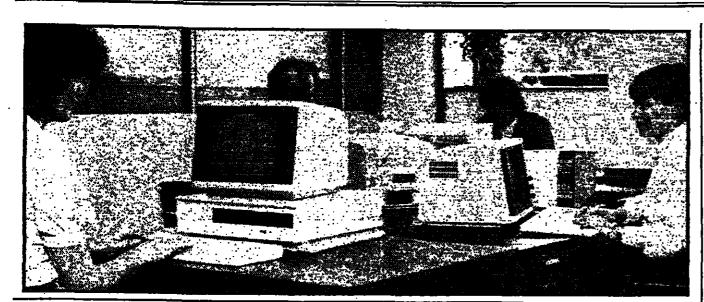
business card to this

London SW6 2AG Telephone: 01-731 4310

advertisement and post it. Or simply phone. CCA MICRO

CCA MICRO RESTALS LIMITED Unit 7/8, Imperial Studios, Imperial Road

المكذا من الأعمل



European market forecasts

A summary of European mark environment, 1984 to 1989, uni	et shipme ts by pro	ents foreca	st for p	ersonal c	omputers sed in The	in the ousands.	corporate
Product type	1984	1985	1986	1987	1988	1989	1985-89
Stand alone Networked Portable	97.50 7.75 30.00	135.75 19.50 61.05	168.25 72.00 126.60	191.75 233.75 195.25	202.70 472.50 301.25	212,25 840.00 423.25	. 910.70 1,637.75 1,107.40
Total units (thousands) .	135.25	216.30	366.85	620.75	976.45	1,475.50	3,65\$.85

There is a growing need to make micros more usable and acces-sible to office staff with little or no computer training, as the number of micros increases by well over 30 per cent a year. Above: an office network of LSI Octobus

Major shift of power

Networking

systems PHILIP MANCHESTER

JOHN McINTYRE, the man who launched IBM's personal computer in the UK commented at a recent conference that more microcomputer "power" will be sold this year in the U.S. than mainframe computer

"By 1987 the installed base of microcomputer power will exceed that of mainframes," he

In simple terms this means that more of the computing done in the U.S. will be done using personal computers than on the larger, more established mainframe computers. Europe and the rest of the world will be close behind.

This enormous and unprecedented shift of computer power from the realm of the expert to that of the so-called end-user will not be without its problems. Paul Bailey of the software specialist company, Digital Research, highlights two major problems as a result of this movement.

"With the number of micros growing at between 30 per cent and 40 per cent a year there are two major developments that we must stay on top of— usability and networking," Mr

Bailey explain By usability, he means making the micro accessible to people with little or no computer training—a good example would be the typical office worker who has been earmarked as a prime target for personal computing. But just making a computer easier to use is not going to be enough: offices are centres of team work and iso-lated personal computers are of only limited use in such an

environment. This is where networking comes into the picture.

The concept of the network has been around for some years and pre-dates the personal computer by as much as a decade. But the cheapness and availability of personal computers has given added impetus to net-

working. Furthermore, it has exposed an inherent lack of standardisa-tion in the computer industry. In essence, networking means plugging computers together so that they can "talk" to each other, as well as sharing

resources. A classic application of a network in office automation would be where a number of personal computer users wanted make use of an expensive high quality printer or a large capacity disc drive.

As individual users of personal computing, the cost of such devices could not be justified. But if they can all share them through a network, it can become feasible.

"My personal feeling is that it has taken too big a bite of the apple and is having a hard time coming to terms with networking for personal computer users." he are the same and the same an

The lack of a standard method of attaching personal compu-ters and the expensive shared devices to a network has proven to be a difficult obstacle to overcome, however. This is an inheritance from the traditional data processing industry where manufacturers were keen to lock customers into buying only their equipment. Even now, it is much easier—though, per-haps, less desirable—for a customer to stick to a single equipment and software

At the beginning of the 1980s the International Standards Organisation (ISO) attempted to establish some sort of order by setting out a comprehensive standards.

Known as the Open System Interconnection (OSI) standard, it laid down a series of layers which specify standards for connecting everything from telephone systems to personal

Standards

Many manufacturers have adopted the standards as they have become available. But the major supplier, IBM, has commitment to the OST standard.

"Standards are still very fragmented as no one has agreed quite what they are going to be," says Mr Bailey. "IBM has further confused things by not making up its mind," he adds. David Fraser, UK managing

time coming to terms with net- ing systems and networking working for personal computer software to be included.

users," he says.
So far, IBM has made only statements of direction about networking and released a bare minimum of products for net-working personal computers. Part of the problem is that IBM has had a grand scheme for networking for ten years—the so-called System Network Architecture, SNA. The concept embraces all of IBM's products from its largest mainframes to its smallest micros.

Geared mainly to the needs of its large corporate customers. SNA was originally conceived as network with a very strong element of central control. At that time there were no per-sonal computers so it is no great surprise that they and their communications needs not included in the original SNA design.

SNA has, of course, changed considerably to accommodate technological advances since technological auvances since the 1970s—especially the developments in personal computers. But the idea of central control still lingers on and this does sit easily alongside the current trend to get personal computers to talk to each other. microcomputers that they have

local area networks. Last month the UK industry of data processing expert," he body, the British Microcomputer says. Manufacturers' Group (BMMG).

CP-NET though later the full OSI standard will be adopted paving the way for other operat-

The grouping includes number of British companies ICL. Logica and British Tele-com among them — but the notable absence of IBM from such an initiative casts doubt on its long term viability.

Even when the problems of connection have been overcome. application of networking will still have a long way to go.
Both Mr Bailey from Digital
Research and Mr Fraser from
Microsoft see significant
administration problems in controlling networked personal

Problems

"If you believe the unit growth rates, the number of installed micros by the end of this decade will have increased tenfold. Companies are going to have a kind of decision making anarchy if there is no reference data controlled by some responsible party," comments Mr Bailey. "You can't immediately change the way people work in an office, so there will be a lot of teething problems," he adds.

Mr Fraser is even more forthright: "Networking really

The lack of an accepted net-forthright: "Networking really working standard has so concerned UK manufacturers of organisation. If you have a microcomputers that they have recently taken their own initia-tive in a crucial area of per-crucial that someone is able sonal computer networking to understand what is going and that means some sort

while networking techtogether with the Department nology is going to provide a of Trade and Industry, announced a phased introduction of standards for connecting personal computer users and give them a novel way director of the software company, Microsoft, suggests that IBM has tried to do too much in networking rather than starting simple and building up to more complex networks later. In the initial software standard personal computer users and give them a novel way of communicating, it is not going to remove many of the obstacles to creating the long-to-more complex networks later.

Hardware and software markets A summary of Market shipments forecast for personal computers in the corporate environment, 1984 to 1989, hardware and software values. The following values are expressed in \$m at constant end-1984 levels, on an "if sold" basis,

and rounded to the nearest 3.							1005.00
Product type	1984	1985	1986	1987	1988	1989	1985-89
HARDWARE Stand alone Networked Portable Total hardware value	453.39 41.48 82.52 577.39	570.15 94.58 152.65 817.38	639,35 316,80 278,52 1,234,67	651.95 923.34 361.23 1,936.52	618.25 1,701.00 497.10 2,816.35	583.71 2,739.03 634.91 3,948.65	5,765.75
SOFTWARE System System support Applications Total software value	30.09 59.69 <i>99.51</i> 189.29	57.81 134.93 211.43 403.27	131.88 274.75 463.64 870.27	285.29 534.98 851.55 1,670.83	495.71 937.03 1,254.46 2,687.20	808.62 1,643.49 1,793.56 4,245.07	3,523.38 4,574.64 9,876.64
Grand total value	766.68	1,220.65	2,104.94	3,607.35	5,503.55	8,193.72	20,630.21

CASE STUDY: SOLUTIONS IN MULTI-CURRENCY ACCOUNTING

International accounting made easier

ACCOUNTANTS are one group general) ledger systems. Other of professionals which has seized the opportunities offered by the microcomputer as a management tool.

In the small value of the systems of the

In the small business they are widely used for accounting, and, in the multipational, for financial planning.

Advances in technology have led to the more powerful micro-computers becoming a viable option to the low-end minicomputer. Accounting software for microcomputers is also far cheaper: a mainframe package can cost £30,000 or more, but a complete microcomputer-based package may well be only a third of the cost of mainframe

As a result of the increasing sophistication of accounting soft-ware, the accountant in the multinational company now has ware, the accountant in the multinational company now has a relatively cheap, flexible method of achieving results previously available only from a minicomputer or mainframe.

There are now at least 800 different accounting packages available for microcomputers. These packages range from sales ledger systems to payroll, invoicing, bought in the multinational group or an import and paraticely few accounting staff.

Dillon Technology International reports are ready on the same day as its own figures. This work has to be done by comparatively few accounting staff. Locally, the four offices maintain accounts in the currency and format applicable to each company is part of a multinational group or an import and export company. payroll, invoicing, bought ledger systems and nominal (or

Each business sector tends to generate its own software packages—for example, there are more than 40 packages alone for the legal profession for time-recording and so on.

Some accounting systems are highly specialised—for example, multi-currency accounting sys-tems, of which there are prob-ably less than a dozen on the

market so far. ware. Shortlands Computing Services, Tetra Business systems, Sapphire Systems and Dillon Technology Inter-

The system consists of sales, purchase and nominal ledgers, as well as stock control, sales order processing and sales in-

Four offices

One international semiconductor corporation for example. is involved in all aspects of the business, from maunfacturing to service, and installed the market so far.

Among the producers of such specialised currency packages are Omicron Management Soft-are Chartlands Computing These offices need to meet to service, and installed the multicurrency accounting packages in four European offices.

These offices need to meet tight deadlines imposed by the U.S. parent company which de-mands that European financial

export company.

In addition, the translation reporting practices. There is no common European reporting

standard, despite attempts for harmonisation, such as the 1981 Companies Act

Each office maintains accounts in the local currency for management and statutory reporting. In addition, the system automatically creates accounts in dollars for consolivoicing and analysis modules. dation into a common format acceptable to the U.S. parent company. In this case, currency conversion is carried out under the FASB 52 standard, since the parent company is in the U.S.

The four European offices also need to calculate their exposure due to fluctuations in the exchange rates. These can be handled by informed dealing on the currency markets which is why Lyric has a "memo" currency facility to give timely information.

Dillon Technology of Maiden head, Berkshire, which distri-butes the system, claims that its accounting system, implemented on 16-bit microcomputers, with a hard disk, is five times cheaper than a low-cost minicomputer system, but is capable of giving the professional PC-

user comparable results. MICHAEL WILTSHIRE

No simple solutions

IT IS estimated that by the end of the decade one-in-three white collar workers in Britain will be using a personal computer. In st-ict numbers that means around 4m of these machines sitting on people's desks, according to a recent forecast by the International Data Corporation.

In many cases personal computers will be installed in companies that have already made significant investments in larger scale data processing or mainframe computing-a situation which poses a problem.

Micro-mainframe

linking

PHILIP MANCHESTER

Behind what appears to the

user as a series of menus are the usual components of what has come to be known as a micro-mainframe link. These

How can personal computer users link up to corporate information resources and make use of them? The answer, in the past, has been to provide workers with terminals attached to the company mainframe com-puter. But with the option of the personal computer now available, terminals are not just a less convenient answer-they are a much more expensive one.

The latest technological fix is to connect personal computers directly to the company mainframe and provide software that

micro-mainframe link. These comprise a piece of software to pretend to be one of the common terminals known as an emulator, a package to handle the visual display screen itself and a controlling program to the program of all ingester. frame and provide software that allows them to "pretend" to be terminals. It sounds simple. With the computing power being built into modern personal computers, getting them to behave like the relatively simple terminals (often referred to as 'dumb' terminals) would seem straightforward. keep it all together.
Often the term micro main-frame link is applied to all or seem straightforward.

But it is not. There is a basic clash of cul-tures between personal com-puters and mainframe data processing. The former emphasises ease-of-use for people who are not at all interested in the tech-nology of computing. The latter emphasises efficient use of the

emphasises emicient use of the technology.

"When you talk about putting computing on senior management's desks, usability is not a mere luxury—it is a major requirement," explains Mr Jeff Roberts of IMI Com-

"When you are selling large numbers of units you cannot afford large-scale support, be-cause of the low cost of the product. But with mainframe products which might well be addressing the same function, usability is not at the top of the list."

Mr Roberts' company, a sub-sidiary of the IMI Group, has attempted to reconcile these two cultures with a linking package called Host Interface Manager, (HIM). "We asked ourselves whether

there was a way that we could present a common system image to the personal computer-user of what was on the mainframe," adds Mr Roberts.

puter-user by sitting between the two.



Files can be down-loaded from a mainframe to a micro for local processing

any of these components and this has led to some confusion in the market place. Some large software companies, for example, offer this technology as part of a complete Stuart Walsh, managing director

rechnology as part of a complete package of their own software, including spreadsheet and word processing on the personal computer and database software on the mainframe.

Advantages

Such products are offered by Cincom and Cullinet, but unlike the HIM product they are

cincom and Cullinet, but unlike concurs with this view and sugter the HIM product they are specific to the companies' own products. This can have advantages. Package Programs, for instance, offers a proprietary link (Smartlink) to connect to a mainframe general ledger package which it also sells.

Concurs with this view and suggests that some software consumers that sell dedicated links are trapping their customers.

"They are trying to leverage customers into their own products. Even though they are products, they are trying to influence the user's strategic

"It is faster to have a customised link, but then it is not as flexible as something like HIM," says Mr John Dyson, new products manager at PPL.
"We also sell HIM for general purpose applications so that we can present data to a personal computer package like Lotus

In effect, HIM hides the companies out to allow other companies "We see micro mainframe puter-user by sitting between "In the early days we did not wider to include the program-

our technology," explained Mr grammer workbench," he says The computer industry has been slow to make use of its own technology to improve its own productivity. Other com-panies have caught on to the value of taking software deve-

so has the giant French soft-ware company, CAP Gemini

fluence the user's strategic thinking," he suggests. "We adopt a more open approach at both ends so we can link virtually any personal computer software to any mainframe soft-

Informatics does in fact limit its offering to certain products (" for pragmatic marketing rea-Management Science of the appropriate software to incompany almost any company could build frames and we are seeing management (MSA) started out by offering a dedicated link that only functioned with its packages but has recently opened it software development itself. sons") but Mr Durrell adds that almost any company could build

lopment away from the expensive mainframe to the micro.

The UK company, Microfocus, has developed a Cobol programmers' workbench to do this and

Demand

According to a survey conduc-According to a survey conducted recently by Peterborough Software, around half of the large computer usors in the UK already have micro mainframe links in place and a third are using personal computers for updating mainframe databases.

"It's clear that a growing 'It's clear that a growing

number of companies are looking for communications between their micros and their main-

Laking, joint managing director of Peterborough Software.

"It is the 'glue' that brings together all sorts of products from different stables," comwant to let our competitors use mer as a user, leading to a proments Mr Roberts from IMI.

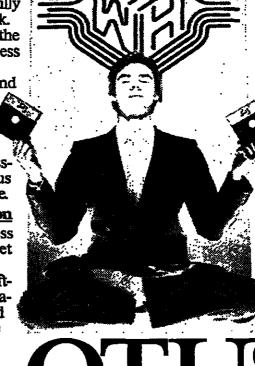
Lotus lead the world in business software and they've just appointed their first fully authorised training network. Naturally, they've opted for the best-the W.H. Smith Business Computer Centres.

Our training facilities and expertise are the best in the business, and with our friendly guidance you can now be sure of deriving the maximum possible benefit from your Lotus 1-2-3 or Symphony software.

The Best Combination

At a W.H. Smith Business Computer Centre, you'll get high quality training and support for your Lotus software purchases, using a syllabus and materials provided by Lotus themselves. The Lotus-W.H. Smith Business Computer

Centre combination will not only serve you invaluably now,



of the continuity of service which every W.H.Smith **Business Computer Centre** provides.

Our philosophy is that 'no one has more time for you? It's a commitment to

service which is particularly valuable in the dynamic world of business systems. And one that has earned

us the the symbol of a Lotus Authorised Training Centre. The symbol to



insist on if you're a Lotus user

Course Details

There are currently three W.H. Smith Business ComputerCentres where you can learn to maximise the value of Lotus 1-2-3 and Symphony. They're

but well into the future too. That's because the Lotus Authorised Training Centre scheme is designed to set and maintain the highest standard of training in all Lotus products, those present and those still



Every W.H. Smith Business Computer Centre is designed with training in mind.

At the heart of each is a ComputerCollege-apurpose built training facility offering hands-on tuition at individual work-stations under the guidance of experienced training specialists.

It's the best environment for learning about your Lotus software's full potential.

Continuity of Service

To be authorised as a Lotus Training Centre is a reflection

situated at Crawley, Hounslow and Reading and all offer easy access by road and free parking when you arrive. Phone us for details of our training courses, or to arrange on-site training for yourself or your staff.



No one has more time for you 82-86 High St. Crawley, Sussex RH101YW.

Tel: (0293) 29778 83-93 Staines Road, Hounslow, Midds, TW33HW,

Tel: 01-5721577 59-75 Queens Road, Reading RG1 4DW. Tel: (0734) 500771

Opening up new horizons

COMPANIES around the world are gingerly getting to grips with novel types of computer software expert systems — that aim to encapsulate human knowledge in a form that can be made available to relatively untrained people.

Rsearch into expert systems, which started in the U.S. academic institutes in the 1970s, was driven by two factors.

Increase in

expert systems

PETER MARSH

affairs in much the same way

that they now read specialist books or talk to colleagues.

A few (mainly small) com-

panies are either selling expert

systems or advising large organ-isations on how to set them up.

Those big companies that have become interested in the tech

niques are largely in the experi-mental stage and are stopping

short of implementing expert systems in a routine fashion either in factories or in offices. Opinions vary as to the future

many companies under-

estimate the amount of time taken in feeding expert know-

This step may take many

weeks or even months, tying up the time of a highly-paid

employee when he could be

working in areas of more direct benefit to his company,

Dr John Taylor, head of the information systems laboratory

at Hewlett Packard's new re-search centre in Bristol, has a

THE ROLE of the personal computer in a large business will

cial Times conference on the

theme, "Communications in the UK — the challenge of choice."

ference will take place at the Hotel Inter-Continental on

Wednesday and Thursday, April

incides with the Communica-tions Exhibition at London's

24 and 25, 1985. The event co-

them useful,

 First, scientists wanted to increase the ease with which information can be fed into and extracted from computers Second, researchers felt there could be a commercial need for data bases containing expert

tapped by ordinary people. The expert systems produced by centres such as Stanford University in California and the University of Pittsburgh, contain hundreds, if not thousands, of rules in subjects such as oilfield prospecting and medical

knowledge that can be easily

The rules—of the general form "If factor X applies, then there is a Y per cent chance that condition Z is true"—are inserted into a computer by a specialist in a particular area using a special programming

Thanks to the way that the software is structured, a relatively unskilled person can then interrogate the computer to obtain insights into the specialist knowledge contained in the machine.

Guidance

Rather than give the person specific answers to questions, the computer would guide him or her to conclusions, perhaps asking questions to obtain further information about a particular area.

In the past couple of years, the pace of development in expert systems has quickened. This is both as a result of new work in software techniquesfunded in some cases by national programmes such as Alvey project or the Japanese Government's work in of success in adapting expert systems to run on small, cheap microcomputers as opposed to big and expensive mainframes.

In the business world, expert systems could in theory have a host of applications. For instance, the knowledge of a highly trained process engineer could be put into a computer for use either in training or for operational applications in the control of a chemical or oil

Planners and office managers could consult expert systems for Earls Court. advice on matters such as legal

more bullish view. He says: "Researchers still have to crack some technical problems over expert systems, for example to make them operate in real time (to give instant answers to questions) and to make them capable of handling

very large amounts of data. "But their long-term potential will be tremendous. In future, using the services of a professional who doesn't use an expert system to advise him will be like going to a dentist who doesn't use an anaesthetic." DEC, the big U.S. computer company, is probably further ahead than any commercial organisation in using expert

systems. With researchers from Carnegie Mellon University in

Pittsburgh, it developed a sys-

tem called XCON (formerly called R1) to help in the construction of VAX computers.
With the system, workers in a factory can gain advice on how to fit components such as electrical devices inside a computer to suit the needs of a specific customer. The system also gives them a check list to make sure all the manufactur-ing tasks have been completed. DEC is developing further types of expert systems to help in tasks such as management and other manufacturing jobs.

Opinions vary as to the future potential for the systems. Mr Chris Mobbs, a manager at Hoskyns, the computer consultants, says that for many companies expert systems are difficult to justify on grounds of cost and the time taken to make There have been other pointers as to the future use Although Mr Mobbs can see the attraction of having expert knowledge "on tap" at a touch of a computer keyboard, he says of expert systems: • Elf, the French company, is investigating expert systems for jobs such as maintenance of oil platforms. In theory, computers could receive data routinely from sensors on the platform and process the information ledge into the computer in the expert systems to warn

of faults Britoil, another oil company, is interested in expert systems as a tool to help in the deciphering of complex geophysical data, for example from seismographs. It is working in this with Oil-field Expert Systems, a small company based in Burgess Hill, Sussex.

COMMUNICATIONS CONFERENCE

Planning for information

technology: how to decide

when to scrap old products and

Wider choices in communi-

systems; and when, in the pro-duct life-cycle, to buy.

cations and information tech-

ference will include:

cations environment.

Other topics at the FT con- markets,

The new UK telecommuni- the future challenges.

nology.

The future growth in value24-hour answering service;
added systems and services telex 27437 FTCONF G).

 Racal is investigating the techniques as an aid in the understanding of masses of to unravel particularly absended signals, derived for insets of company accounts. stance from radar or other mili-Companies selling various

tary equipment. The Ministry of Defence's Admiralty Research Establishment in Portsmouth, as well as research centres run by the U.S. Department of Defense, is also interested in this application of expert systems.

• Unilever is working on expert systems in its research leaves. systems in its research laboratories for applications in process gramming Logic Systems, based plants. They could help in the diagnosis of faults in say, facin Connecticut, are among the small organisations selling expert systems in the U.S. tories that turn out washing powder. In such plants, small discrepancies in, for instance, the amount of chemical fed through a valve may disrupt the whole process though the exact nature of the fault may be diffi-

• Researchers at St Thomas's medical school in London are working on an expert system that could help doctors to control diseases such as diabetes.
The system would contain hundreds of rules related to the disease, for example linking symptoms with specific guide-lines on treatment. According to the researchers, the systems could be used by general prac-titioners with no special know-ledge of diabetes to advise patients suffering from the con-dition.

cult to spot.

 Wolverhampton metropolitan council is attempting to use an expert system to advise junior staff on how to allocate people for council houses. The system would contain knowledge of an experienced housing official as well as sets of rules concerning the basis on which people are clicible for accommodation the council's housing

stock. Two British companies. Expert Systems International of Oxford and Helix Software of Landon, are working on a novel type of software that would advise on financial matters. With the system, banks and

Network services market:

• Preparing for the elec-

More details of the con-

ference, which is designed for

corporate equipment users, are available from the FT Con-

ference Organisation at Mins er House, Arthur Street, London,

would gain advice on, say, how to unravel particularly abstract

forms of expert systems include. in Britain, Logic Programming Associates and Logic Based Systems, both formed by academics from Imperial College, and Exper-tech based in Slough. Teknowledge and Quintus, both of California and Pro-

sell their products in the form of expert-system "shells" - in which the customer has to spend up to several months putting information into the system is the particular subject in which he is interested. Such shells sell for anything between a few hundred pounds to (in the case of one product from Teknow ledge) \$50,000. They can often run on small computers such as the IBM PC or an Apple

Languages

Alternatively, the companies ell a special programming language (in the form of a couple of discs and a manual) that are especially useful for the construction of expert systems.

That leaves the customer with the job of building his own system from scratch, rather as a householder constructs an item of furniture using a do-ityourself kit. The most popular larguages for this job are forms of Prolog or Lisp and they sell typically for a few hundred

Logic Programming Associates, set up by two Imperial College researchers in 1980, has sold about 4,000 copies of its own form of Prolog, called MicroProlog. It reckons about 1,000 have been for "serious" use either in companies or educational establishments — the rest have been bought mainly

by hobbyists. Mr Jonathan Briggs, manager of the five-person company, says that purchasers have included GEC, British Telecom, British Aerospace, Logica, ITT, Siemens, Standard Oil and AT and T.

"Few companies are using their systems in a routine way. But the technology is not more than about 18 months old in terms of it being applicable for use on small computers. We think we are about six months away from seeing the first real applications."



Marks and Spencer's customised version of the Psion Organiser

THERE IS no shortage of companies trying to capture the portable computer market. The industry has seen every-thing including transport-ables, luggables, lap-held to plain old portable.

One company, the British soft-ware group, Psion, has carved

a niche with a pocket com-puter with a performance that falls somewhere between a very sophisticated scientific calculator and a lapheld computer.

The computer, called the Organiser, is the size of a large calculator with a very small and rather fiddly alphanumeric keyboard. When Psion first advertised the

Organiser in the colour supplements it was hard to see what use it had—other than as a sophisticated calculator. Although it promoted its merits as a diary and address book it seemed a complicated way of doing a task that could be better per-formed on conventional paper.

Since the launch, a number of companies have found specific applications for the Organiser which may have a significant advantage over paper and would indicate a better potential market than the sceptics first imagined.

Marks and Spencer, for example, have just started using the Organiser as a means of providing a quick and cheap system of checking its new store chargecard at the till. The Organiser is programmed with a list of void cards from a 16K "datapak" which can store the numbers of up to 8,000 cards.

Wessex Publishing is selling a special version of the Organiser which can be used

USES FOR POCKET-SIZE MACHINES

by builders and quantity surveyors for cost-estimating on a building site. A surveyor. for example, can enter information into the Organiser the dimensions of an area to be concreted and the type of concrete and it will calculate and store the result.

Vigil (c)

Mitterran

3. ...

144

Reagan

\$7 822

Nato sur

Abe plea

Runcie s

Oraș. Com

Goran

art.

 $m_{(a),\dots,a}$ Jr.

Diploma:

Left ahe

ti ri e

Another application developed by Psion is helping doctors to prescribe drugs. The Organiser can store details on 280 drugs under 750 brand names with details of dosage and side effects. Quite whether this will prove as useful as the much more comprehensive monthly booklet, MIMS—no bigger than the Organiser—is doubtful. But Psion are also planning to bring out specialist medical applications devoted to anaesthetics, cancer chemotherapy and endocrinology.

JASON CRISP

Computers become easier to operate

THE BUSINESS world seems to be divided into two kinds of people. Those who find it natural and attractive to use the bird of professional personal computers that are the kind of professional personal computers that are available today-and those who don't.

The latter are in the majority. Yet, the industry argues, the personal computer will only fulfill its true potential when the "non-computing majority" learns to make use of what it has to offer. So, the argument runs, ways must

be found to make personal computers more attractive to non-computing people, to improve the man-machine interface—especially as the industry wants to sell ever greater volumes of its machines:

In truth, but at a different level, there is every bit as much need to make the operation of computers simple for the com-puting specialists. This is why, in the interests of productivity, there is so much investment at present in "software engineer-ing," the development of hardware and software which makes the programmer's job more

One example is the popularity of the Unix operating system; it is by no means the best, but it does have a number of features much liked by the professionals for the productivity advantages it gives them.

For ordinary mortals, however, who find personal computers difficult, even alien, the

problem is quite different.
There have been some attempts to make the hardware itself more amenable — the desktop "mouse" pioneered by Xerox, the touch screen popularised by Hewlett Packard and the voice command system which ACT is building into its business computers, are typical examples

cai examples.

For most suppliers, however, specialised software offers much greater potential for significant improvements in userfriendliness. Leaving aside dedicated applications programs — a specialised stockbrokers' systems — for example, there are

five types of software product that offer increased productivity in the office. These are word processing, spread sheet, graphics, electronic filing and communica-

Viewpoint

Mr Williams Gates, chairman of Microsoft, identified the problem at a Financial Times conference last year: "People are sitting down and using one "They are forced to accept graphics software, some restrictions. They have. It was an increase to give commands to the computer in a very low-level fash-ion. It is up to you and your.

- 8 Manaon Indet." "57 203 - 1"

ALAN CANE these low-level commands work. Future software will change the

Integrated

software

Mr Gates described these new kinds of computer programs as "softer software." He said: "In a sense, you could call this build-ing common sense into a compu-

ter. What the machine should do is anticipate common actions." a user always consults two files in sequence, the computer should be able to recognise that fact and have the second file ready for retrieval when re-

Pitfalls

Nobody is pretending that to develop that kind of computer software will be easy. The road to easy-to-use personal comto easy-to-use personal com-puters is seemingly full of pit-

Last month a shiver went Last month a shiver went through the personal computer industry when Lotus Develop-ment Corporation admitted that its "Jazz" integrated software package for Apple's innovative Macintosh computer would be delayed.

It was to have been released at the beginning of April, but now it seems unlikely to appear before the middle of the year. The significance of this delay The significance of this delay lies in the fact that Lotus is the originator of the best-selling "1-2-3" package which has contributed greatly to the success of the IBM PC.

"1-2-3" was the first of what

problem at a Financial Times conference last year: "People are sitting down and using one of these productivity tools because they have decided that working with information in electronic form means they cando more, see more and try things out in different ways."

"They are forced to accept are known as "integrated" packages, single packages, s

puter in a very low-level fashion. It is up to you and your computing power to translate the idea of what you want to do — generally a high-level activity, like updating a sales report — into low-level commands the computer can accept."

Mr Gates went on: "We are making improvements in how whole raft of imitators and it possible to create on any microcomputer the graphic aids typical of the Apple Macintosh, database management, communications and business graphics is a strategically important product both for Lotus and for Apple.

The personal computing world basically follows one of two make today's personal computers look positively pre-historic.

ing system which best suits the computer literate, and the Apple Macintosh approach where pic-tures on the screen help the user to carry out computing

For the occasional user and those who find computers very unfriendly, it seems to be an approach that works. Dennis Longley and Michael Shain in the 1985 Microcomputer Users ence Paperbacks), say: "Apple's claim that a new user can be performing tasks within min-utes. rather than hours, is valid."

But they complain: "There types of commands that you give to the computer so you will be able to work in a much higher-level fashion than you do to-day."

There computer to be a considerable processing overhead inherent in the generation of the praphics and the menus." "All this extreme friendliness

means that the user spends a lot of time waiting for the system to execute its instructions."
For Apple, however, Lotus Jazz software was seen as a new chance to break into the business personal computer market with Macintosh, where it has not He was talking basically shout building a level of pattern recognition and reasoning into the computer. If, for example, as a supplier of business computers—note its dominant position in France, for example and, as such, direct competition

and, as such, direct competition for IBM. In the U.S., however, it is seen much more as a highend home computer supplier, and its penetration of the corporate computer sector is substantially less than IBM's.

So the delay in the introduction of Jazz is a considerable setback for Apple. It is also a setback for Lotus, the first time it has failed to ship a promised product on time. The company product on time. The company has also failed to achieve quite

has also failed to achieve quite the rapturous reception for its new integrated package. "Symphony." that greeted 1-2-3.

Symphony combines spreadsheet, word processing graphics, database management and comunications capabilities. With present computing technology, it is probably at the limit of integration. Mr Mitchell Kapor, chairman of Lotus, says: "If Lotus gave the impression that Symphony was a panacea for all ills, then that was wrong."

Exciting

According to Longley and Shain: "Integrated applications software is arguably the most exciting field of development in microcomputing. Not only is it a leap forwards in terms of providing users with what they require, it also has great implications for the software industry in terms of how software is developed and marketed."

Products such as Digital

It was an instantaneous and massive success and spawned a whole raft of imitators and "me-too" products.

"Jazz," which combines word processing worksheet analysis.

FOUR REASONS WHY SORD IS THE FASTEST GROWING COMPUTER COMPANY IN JAPAN.

M68. 8-bit/16-bit desktop system

Offers multiple operating systems and a CPU design which enables it to run both 16-bit and 8-bit software, including RM COBOL, BASIC, and all CP/M-based programs. Also supports Word Processor II and PIPS, SORD's unique Pan Information Processing System, which integrates spreadsheet, data base, graphics, text processing and programming functions into one system.

M343SX. 16-bit multi-user system

Features multiple operating systems (including multi-user Concurrent DOS 3.1 and MS-DOSTM version 2.0), IBM terminal emulation and full language support (FORTRAN, LEVEL-II COBOLTM, MBASIC, PASCAL, C, and Assembler).

"CAD-BRAIN". Turnkey CAD Package Low-cost/high-powered hardware/software package that brings computer aided design within the financial reach of the independent designer. Also suitable, of course, for large firms. Features high-resolution 1024 × 780 dot color monitor, a complete range of built-in design elements ("primitives"), and full graphics leatures.

M243EX. 8-bit multi-user system

The cost-effective way to bring office automation to your whole staff. Features PIPS, BASIC, ANSI-74 COBOL, FORTRAN-80 and assembler. An excellent workstation for use in SORD's local area network (S-NET).



A STATE OF THE PARTY OF THE PAR



Japan's fastest growing computer company.

SORD COMPUTER CORPORATION Republish: K-1 Bidg., 7-12 Yacus 2-chome, Chan-ku, Tokyo 164, Japan. Tel. (63) 281-8111 Telest 2522-45 SORD J Fatt (65) 281-7-29 (GH/GITH SORD COMPUTER 9797EMS (U.K.) LYD. Kirkman Hune, 1214, Whafield Street, London WTF 5RD Rd. (1) 641 0787 The 250885 SORD UKG Fatt (1) 641 0058 Computer DOS is a registered basemark of Digad Research Corporation. Level-1 COBOL is a registered basemark of Digad Research Corporation.

